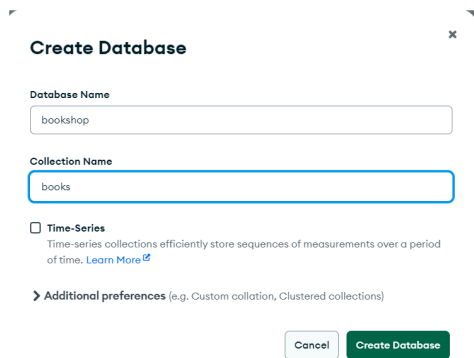1.

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

2.

3. use bookshop

```
db.books.insertMany([{
    "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,
    "available": true,
    "rating": 4.4
},
{
    "title": "Brave New World",
    "author": "Aldous Huxley",
    "published_year": 1932,
    "genres": ["Science Fiction", "Dystopian"],
    "pages": 311,
    "available": true,
    "rating": 4.2
}])
```

```
{
  acknowledged: true,
  insertedIds: {
    '0': ObjectId('680ef843e776cf4bd26100df'),
    '1': ObjectId('680ef843e776cf4bd26100e0'),
    '2': ObjectId('680ef843e776cf4bd26100e1'),
    '3': ObjectId('680ef843e776cf4bd26100e2')
  }
}
```

4. db.books.find().pretty()

	_id ObjectId	title String	author String	published_year Int32	genres Array	pages Int32
1	ObjectId('680ef806a6b9e8...	"The Hobbit"	"J.R.R. Tolkien"	1937	[] 2 elements	310
2	ObjectId('680ef843e776cf...	"1984"	"George Orwell"	1949	[] 2 elements	328
3	ObjectId('680ef843e776cf...	"To Kill a Mockingbird"	"Harper Lee"	1960	[] 2 elements	281
4	ObjectId('680ef843e776cf...	"The Great Gatsby"	"F. Scott Fitzgerald"	1925	[] 1 elements	180
5	ObjectId('680ef843e776cf...	"Brave New World"	"Aldous Huxley"	1932	[] 2 elements	311

5. db.books.find({ published_year: {$gt:1950}})

```
> db.books.find({ published_year: {$gt:1950}})
< {
    _id: ObjectId('680ef843e776cf4bd26100e0'),
    title: 'To Kill a Mockingbird',
    author: 'Harper Lee',
    published_year: 1960,
    genres: [
      'Southern Gothic',
      'Drama'
    ],
    pages: 281,
    available: false,
    rating: 4.6
  }
```

6. db.books.find({ available: true})

```
< {
    _id: ObjectId('680ef806a6b9e8ca4a434c48'),
    title: 'The Hobbit',
    author: 'J.R.R. Tolkien',
    published_year: 1937,
    genres: [
      'Fantasy',
      'Adventure'
    ],
    pages: 310,
    available: true,
    rating: 4.8
  }
  {
    _id: ObjectId('680ef843e776cf4bd26100df'),
    title: '1984',
    author: 'George Orwell',
    published_year: 1949,
    genres: [
      'Dystopian',
      'Political Fiction'
    ],
    pages: 328,
    available: true,
    rating: 4.7
  }
```

```
{
  _id: ObjectId('680ef843e776cf4bd26100e1'),
  title: 'The Great Gatsby',
  author: 'F. Scott Fitzgerald',
  published_year: 1925,
  genres: [
    'Tragedy'
  ],
  pages: 180,
  available: true,
  rating: 4.4
}
{
  _id: ObjectId('680ef843e776cf4bd26100e2'),
  title: 'Brave New World',
  author: 'Aldous Huxley',
  published_year: 1932,
  genres: [
    'Science Fiction',
    'Dystopian'
  ],
  pages: 311,
  available: true,
  rating: 4.2
}
```

7. db.books.find({ genres: 'Dystopian'})

```
db.books.find({ genres: 'Dystopian'})
{
  _id: ObjectId('680ef843e776cf4bd26100df'),
  title: '1984',
  author: 'George Orwell',
  published_year: 1949,
  genres: [
    'Dystopian',
    'Political Fiction'
  ],
  pages: 328,
  available: true,
  rating: 4.7
}
{
  _id: ObjectId('680ef843e776cf4bd26100e2'),
  title: 'Brave New World',
  author: 'Aldous Huxley',
  published_year: 1932,
  genres: [
    'Science Fiction',
    'Dystopian'
  ],
  pages: 311,
  available: true,
  rating: 4.2
}
```

```
db.books.find({ genres: 'Dystopian'})
{
  _id: ObjectId('680ef843e776cf4bd26100df'),
  title: '1984',
  author: 'George Orwell',
  published_year: 1949,
  genres: [
    'Dystopian',
    'Political Fiction'
  ],
  pages: 328,
  available: true,
  rating: 4.7
}
{
  _id: ObjectId('680ef843e776cf4bd26100e2'),
  title: 'Brave New World',
  author: 'Aldous Huxley',
  published_year: 1932,
  genres: [
    'Science Fiction',
    'Dystopian'
  ],
  pages: 311,
  available: true,
  rating: 4.2
}
```

8. db.books.find({ published_year: {$gt:1960},rating:{$gt:4.0}})

```
db.books.find({ published_year: {$gt:1960},rating:{$gt:4.0}})
```

9. 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'
}
```

10. db.books.updateOne({title: '1984'},{$set:{ available: false}})
    db.books.findOne({title: '1984'})

```
> db.books.updateOne({title: '1984'},{$set:{ available: false}})
< {
    acknowledged: true,
    insertedId: null,
    matchedCount: 1,
    modifiedCount: 1,
    upsertedCount: 0
  }
> db.books.findOne({title: '1984'})
< {
    _id: ObjectId('680ef843e776cf4bd26100df'),
    title: '1984',
    author: 'George Orwell',
    published_year: 1949,
    genres: [
      'Dystopian',
      'Political Fiction'
    ],
    pages: 328,
    available: false,
    rating: 4.7
  }
```

11. db.books.updateOne({ title: 'Brave New World'},{$inc:{ rating: 0.1}})
    db.books.findOne({ title: 'Brave New World'})

```
> db.books.updateOne({ title: 'Brave New World'},{$inc:{ rating: 0.1}})
< {
    acknowledged: true,
    insertedId: null,
    matchedCount: 1,
    modifiedCount: 1,
    upsertedCount: 0
  }
> db.books.findOne({ title: 'Brave New World'})
< {
    _id: ObjectId('680ef843e776cf4bd26100e2'),
    title: 'Brave New World',
    author: 'Aldous Huxley',
    published_year: 1932,
    genres: [
      'Science Fiction',
      'Dystopian'
    ],
    pages: 311,
    available: true,
    rating: 4.3
  }
```

12. db.books.updateOne({ title: 'The Great Gatsby'},{$push:{ genre: "classic"}})

```
> db.books.findOne({ title: 'The Great Gatsby'})
< {
    _id: ObjectId('680ef843e776cf4bd26100e1'),
    title: 'The Great Gatsby',
    author: 'F. Scott Fitzgerald',
    published_year: 1925,
    genres: [
      'Tragedy',
      'classic'
    ],
    pages: 180,
    available: true,
    rating: 4.4
  }
```

13. db.books.find().sort({published_year:1})

```
> db.books.find().sort({published_year:1})
< {
    _id: ObjectId('680ef843e776cf4bd26100e1'),
    title: 'The Great Gatsby',
    author: 'F. Scott Fitzgerald',
    published_year: 1925,
    genres: [
      'Tragedy',
      'classic'
    ],
    pages: 180,
    available: true,
    rating: 4.4
  }
  {
    _id: ObjectId('680ef843e776cf4bd26100e2'),
    title: 'Brave New World',
    author: 'Aldous Huxley',
    published_year: 1932,
    genres: [
      'Science Fiction',
      'Dystopian'
    ],
    pages: 311,
    available: true,
    rating: 4.3
  }
```

```
{
  _id: ObjectId('680ef806a6b9e8ca4a434c48'),
  title: 'The Hobbit',
  author: 'J.R.R. Tolkien',
  published_year: 1937,
  genres: [
    'Fantasy',
    'Adventure'
  ],
  pages: 310,
  available: true,
  rating: 4.8
}
{
  _id: ObjectId('680ef843e776cf4bd26100df'),
  title: '1984',
  author: 'George Orwell',
  published_year: 1949,
  genres: [
    'Dystopian',
    'Political Fiction'
  ],
  pages: 328,
  available: false,
  rating: 4.7
}
{
  _id: ObjectId('680ef843e776cf4bd26100e0'),
  title: 'To Kill a Mockingbird',
  author: 'Harper Lee',
  published_year: 1960,
  genres: [
    'Southern Gothic',
    'Drama'
  ],
  pages: 281,
  available: false,
  rating: 4.6
}
```

14. db.books.find().sort({rating:-1})

```
> db.books.find().sort({rating:-1})
< {
    _id: ObjectId('680ef806a6b9e8ca4a434c48'),
    title: 'The Hobbit',
    author: 'J.R.R. Tolkien',
    published_year: 1937,
    genres: [
      'Fantasy',
      'Adventure'
    ],
    pages: 310,
    available: true,
    rating: 4.8
  }
  {
    _id: ObjectId('680ef843e776cf4bd26100df'),
    title: '1984',
    author: 'George Orwell',
    published_year: 1949,
    genres: [
      'Dystopian',
      'Political Fiction'
    ],
    pages: 328,
    available: false,
    rating: 4.7
  }
  {
    _id: ObjectId('680ef843e776cf4bd26100e0'),
    title: 'To Kill a Mockingbird',
    author: 'Harper Lee',
    published_year: 1960,
    genres: [
      'Southern Gothic',
      'Drama'
    ],
    pages: 281,
    available: false,
    rating: 4.6
  }
  {
    _id: ObjectId('680ef843e776cf4bd26100e1'),
    title: 'The Great Gatsby',
    author: 'F. Scott Fitzgerald',
    published_year: 1925,
    genres: [
      'Tragedy',
      'classic'
    ],
    pages: 180,
    available: true,
    rating: 4.4
  }
```

```
{
  _id: ObjectId('680ef843e776cf4bd26100e2'),
  title: 'Brave New World',
  author: 'Aldous Huxley',
  published_year: 1932,
  genres: [
    'Science Fiction',
    'Dystopian'
  ],
  pages: 311,
  available: true,
  rating: 4.3
}
```

15. db.books.deleteMany({rating:{$lt:4.5}})

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

	_id ObjectId	title String	author String	published_year Int32	genres Array	pages Int32
1	ObjectId('680ef806a6b9e8…	"The Hobbit"	"J.R.R. Tolkien"	1937	[] 2 elements	310
2	ObjectId('680ef843e776cf…	"1984"	"George Orwell"	1949	[] 2 elements	328
3	ObjectId('680ef843e776cf…	"To Kill a Mockingbird"	"Harper Lee"	1960	[] 2 elements	281