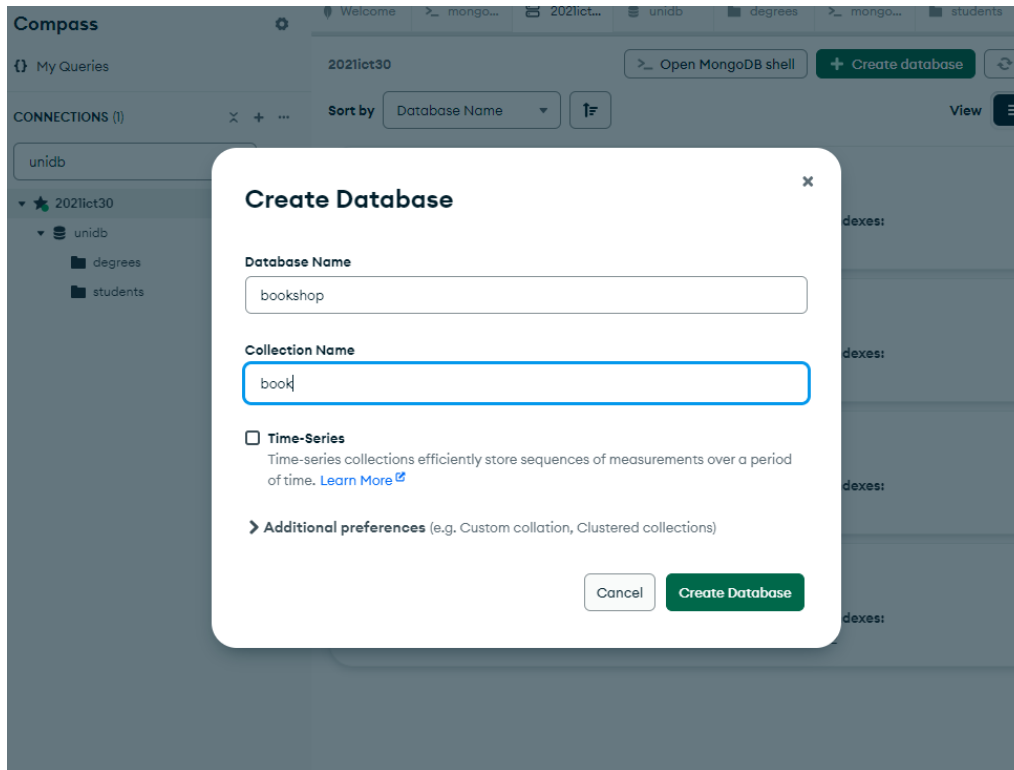1. create a database and collection

2. insert the multiple data

```
db.books.insertMany([
 {
    "title": "The Hobbit",
    "author": "J.R.R. Tolkien",
    "published_year": 1937,
    "genres": ["Fantasy", "Adventure"],
    "pages": 310,
    "available": true,
    "rating": 4.8
 },
 {
    "title": "1984",
```

```json
    "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('680efb342bba96663cb6aeaa'),
      '1': ObjectId('680efb342bba96663cb6aeab'),
      '2': ObjectId('680efb342bba96663cb6aeac'),
      '3': ObjectId('680efb342bba96663cb6aead'),
      '4': ObjectId('680efb342bba96663cb6aeae')
    }
  }
```

```
_id: ObjectId('680efb342bba96663cb6aeaa')
  title : "The Hobbit"
  author : "J.R.R. Tolkien"
  published_year : 1937
▶ genres : Array (2)
  pages : 310
  available : true
  rating : 4.8
```

```
_id: ObjectId('680efb342bba96663cb6aeab')
  title : "1984"
  author : "George Orwell"
  published_year : 1949
▶ genres : Array (2)
  pages : 328
  available : true
  rating : 4.7
```

```
_id: ObjectId('680efb342bba96663cb6aeac')
  title : "To Kill a Mockingbird"
  author : "Harper Lee"
  published_year : 1960
▶ genres : Array (2)
  pages : 281
  available : false
  rating : 4.6
```

Questions

1. Find all books
   db.books.find();

```
> db.books.find();
< {
    _id: ObjectId('680efb342bba96663cb6aeaa'),
    title: 'The Hobbit',
    author: 'J.R.R. Tolkien',
    published_year: 1937,
    genres: [
      'Fantasy',
      'Adventure'
    ],
    pages: 310,
    available: true,
    rating: 4.8
  }
  {
    _id: ObjectId('680efb342bba96663cb6aeab'),
    title: '1984',
    author: 'George Orwell',
    published_year: 1949,
    genres: [
      'Dystopian',
      'Political Fiction'
    ],
    pages: 328,
    available: true,
    rating: 4.7
  }
```

2. Find all books published after 1950
   db.books.find({ "published_year": { $gt: 1950 } });

```
> db.books.find({ "published_year": { $gt: 1950 } });
< {
    _id: ObjectId('680efb342bba96663cb6aeac'),
    title: 'To Kill a Mockingbird',
    author: 'Harper Lee',
    published_year: 1960,
    genres: [
      'Southern Gothic',
      'Drama'
    ],
    pages: 281,
    available: false,
    rating: 4.6
  }
bookshop >
```

3. Find the avilable books
db.books.find({ "available": true });

```
> db.books.find({ "available": true });
< {
    _id: ObjectId('680efb342bba96663cb6aeaa'),
    title: 'The Hobbit',
    author: 'J.R.R. Tolkien',
    published_year: 1937,
    genres: [
      'Fantasy',
      'Adventure'
    ],
    pages: 310,
    available: true,
    rating: 4.8
  }
  {
    _id: ObjectId('680efb342bba96663cb6aeab'),
    title: '1984',
    author: 'George Orwell',
    published_year: 1949,
    genres: [
      'Dystopian',
      'Political Fiction'
    ],
    pages: 328,
    available: true,
    rating: 4.7
  }
  {
```

4. Find all books that belong to the "Dystopian" genre\
   db.books.find({ "genres": "Dystopian" });

```
> db.books.find({ "genres": "Dystopian" });
< {
    _id: ObjectId('680efb342bba96663cb6aeab'),
    title: '1984',
    author: 'George Orwell',
    published_year: 1949,
    genres: [
      'Dystopian',
      'Political Fiction'
    ],
    pages: 328,
    available: true,
    rating: 4.7
  }
  {
    _id: ObjectId('680efb342bba96663cb6aeae'),
    title: 'Brave New World',
    author: 'Aldous Huxley',
    published_year: 1932,
    genres: [
      'Science Fiction',
      'Dystopian'
    ],
    pages: 311,
    available: true,
    rating: 4.2
  }
```

5. Find the books which published after 1960
   and had rating more than 4.0
   db.books.find({ "published_year": { $gt: 1960 }, "rating": { $gt: 4.0 } });

6. 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'
  }
```

7. Update the book "1984" to set available: false:
   db.books.updateOne(
     { "title": "1984" },
     { $set: { "available": false } }
   );

```
> db.books.updateOne(
    { "title": "1984" },
    { $set: { "available": false } }
  );
< {
    acknowledged: true,
    insertedId: null,
    matchedCount: 1,
    modifiedCount: 1,
    upsertedCount: 0
  }
```

8. Increase the rating of "Brave New World" by +0.1:
   db.books.updateOne(
     { "title": "Brave New World" },
     { $inc: { "rating": 0.1 } }
   );

```
> db.books.updateOne(
    { "title": "Brave New World" },
    { $inc: { "rating": 0.1 } }
  );
< {
    acknowledged: true,
    insertedId: null,
    matchedCount: 1,
    modifiedCount: 1,
    upsertedCount: 0
  }
```

9. Add a new genre "Classic" to "The Great Gatsby":
   db.books.updateOne(
     { "title": "The Great Gatsby" },
     { $push: { "genres": "Classic" } }
   );

```
> db.books.updateOne(
    { "title": "The Great Gatsby" },
    { $push: { "genres": "Classic" } }
  );
< {
    acknowledged: true,
    insertedId: null,
    matchedCount: 1,
    modifiedCount: 1,
    upsertedCount: 0
  }
```

10. Sort books by published_year ascending:
    db.books.find().sort({ "published_year": 1 });

```
> db.books.find().sort({ "published_year": 1 });
< {
    _id: ObjectId('680efb342bba96663cb6aead'),
    title: 'The Great Gatsby',
    author: 'F. Scott Fitzgerald',
    published_year: 1925,
    genres: [
      'Tragedy',
      'Classic'
    ],
    pages: 180,
    available: true,
    rating: 4.4
  }
  {
    _id: ObjectId('680efb342bba96663cb6aeae'),
    title: 'Brave New World',
    author: 'Aldous Huxley',
    published_year: 1932,
    genres: [
      'Science Fiction',
      'Dystopian'
    ],
    pages: 311,
    available: true,
    rating: 4.3
```

11. Sort books by rating descending:
    db.books.find().sort({ "rating": -1 });

```
> db.books.find().sort({ "rating": -1 });
< {
    _id: ObjectId('680efb342bba96663cb6aeaa'),
    title: 'The Hobbit',
    author: 'J.R.R. Tolkien',
    published_year: 1937,
    genres: [
      'Fantasy',
      'Adventure'
    ],
    pages: 310,
    available: true,
    rating: 4.8
  }
  {
    _id: ObjectId('680efb342bba96663cb6aeab'),
    title: '1984',
    author: 'George Orwell',
    published_year: 1949,
    genres: [
      'Dystopian',
      'Political Fiction'
    ],
    pages: 328,
    available: false,
    rating: 4.7
```

12. 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
  }
bookshop>
```