

MongoDB Compass - hitesh.exxonfl.mongodb.net/library_management.categories

Connect Edit View Collection Help

hitesh.exxonfl.m... {} My Queries library_management borrowers categories

library_management > categories

Documents 4 Aggregations Schema Indexes 1 Validation

Type a query: { field: 'value' } or [Generate query](#)

[Explain](#) [Reset](#) [Find](#) [Options](#)

[ADD DATA](#) [EXPORT DATA](#) [UPDATE](#) [DELETE](#)

1 - 4 of 4

```
{ "_id": ObjectId("6609e9db9e55cae94e887f0"), "name": "Mystery" }
{ "_id": ObjectId("6609e9db9e55cae94e887f1"), "name": "Fantasy" }
{ "_id": ObjectId("6609e9db9e55cae94e887f2"), "name": "Romance" }
{ "_id": ObjectId("6609e9db9e55cae94e887f3"), "name": "Science Fiction" }
```

```
> MONGODB
> db.categories.find({ category: "Science Fiction" })
<
> db.categories.find({ name: "Science Fiction" })
< [
  {
    _id: ObjectId('6609e9db9e55cae94e887f3'),
    name: 'Science Fiction'
  }
]
Atlas atlas-29q7jt-shard-0 [primary] library_management>
```

workload • Saved to this PC

File Home Insert Page Layout Formulas Data Review View Help

Clipboard Font Alignment Number Styles Cells Editing Add-ins

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	Enteties	Query Description	Workload										
2	Genre	Find all available books in the "Science Fiction" category.	Read-heavy										
3	Books	Calculate the total number of books borrowed by each borrower.	Aggregation-heavy										
4	Loans	Update the due date for a specific loan.	Write-heavy										
5	Books	Retrieve the top 10 most borrowed books.	Read-heavy										
6	Borrowers	Find borrowers who have overdue loans.	Read-heavy										
7													
8													
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30													
31													
32													

Sheet1

Ready Accessibility: Good to go

MongoDB Compass - hitesh.exxonfl.mongodb.net/library_management.borrowers

Connect Edit View Collection Help

hitesh.exxonfl.m... {} My Queries library_management borrowers borrowers

library_management > borrowers

Documents 0 Aggregations Schema Indexes 1 Validation

Type a query: { field: 'value' } or [Generate query](#)

Explain Reset Find Options

ADD DATA EXPORT DATA UPDATE DELETE 1 - 3 of 3

membership
"Gold"
<pre>{ "_id": ObjectId("6609e9d59e55cae94e887ee"), "name": "Charlie", "membership": "Bronze" }</pre>
<pre>{ "_id": ObjectId("6609e9d59e55cae94e887ef"), "name": "Diana", "membership": "Gold" }</pre>

```
>_MONGOSH
> db.borrowers.deleteOne({ name: "Alice" })
< {
  acknowledged: true,
  deletedCount: 1
}
> db.loans.deleteMany({ name: "Bob" })
< {
  acknowledged: true,
  deletedCount: 0
}
> db.borrowers.deleteMany({ name: "Bob" })
< {
  acknowledged: true,
  deletedCount: 2
}
Atlas atlas-z9q7jt-shard-0 [primary] library_management>
```

MongoDB Compass - hitesh.exxonfl.mongodb.net/library_management.borrowers

Connect Edit View Collection Help

hitesh.exxonfl.m... {} My Queries library_management borrowers borrowers

library_management > borrowers

Documents 0 Aggregations Schema Indexes 1 Validation

Type a query: { field: 'value' } or [Generate query](#)

Explain Reset Find Options

ADD DATA EXPORT DATA UPDATE DELETE 1 - 5 of 5

name
"Bob"
<pre>{ "_id": ObjectId("6609e9d59e55cae94e887ec"), "name": "Alice", "membership": "Gold" }</pre>
<pre>{ "_id": ObjectId("6609e9d59e55cae94e887ed"), "name": "Bob", "membership": "Gold" }</pre>

```
>_MONGOSH
category: 'Classic',
copies: 8
}
{
  "_id": ObjectId("6609e7ab9c22528d8626326e"),
  title: "To Kill a Mockingbird",
  author: "Harper Lee",
  category: 'Classic',
  copies: 3
}
> db.borrowers.deleteOne({ name: "Alice" })
< {
  acknowledged: true,
  deletedCount: 1
}
Atlas atlas-z9q7jt-shard-0 [primary] library_management> db.loans.deleteMany({ name: "Bob" })
```

MongoDB Compass - hitesh.exxonfl.mongodb.net/library_management.borrowers

Connect Edit View Collection Help

hitesh.exxonfl.m... {} My Queries library_management borrowers borrowers

library_management > borrowers

Documents 0 Aggregations Schema Indexes 1 Validation

Type a query: { field: 'value' } or [Generate query](#)

Explain Reset Find Options

ADD DATA EXPORT DATA UPDATE DELETE 1 - 5 of 5

```
{ "_id": ObjectId("6609e9d59e55cae94e887ed"),
  "name": "Bob",
  "membership": "Gold" }
{ "_id": ObjectId("6609e9d59e55cae94e887ee"),
  "name": "Charlie",
  "membership": "Bronze" }
{ "_id": ObjectId("6609e9d59e55cae94e887ef"),
  "name": "Alice",
  "membership": "Gold" }
```

```
>_MONOOSH
author: 'F. Scott Fitzgerald',
category: 'Classic',
copies: 8
}
{
  _id: ObjectId('6609e7ab9c22528d862632be'),
  title: '"To Kill a Mockingbird"',
  author: '"Harper Lee"',
  category: 'Classic',
  copies: 3
}
> db.borrowers.deleteOne({ name: "Alice" })
< {
  acknowledged: true,
  deletedCount: 1
}
Atlas atlas-z9q7jt-shard-0 [primary] library_management>
```

Windows taskbar: Search, 25°C, 18:25, 31-03-2024

MongoDB Compass - hitesh.exxonfl.mongodb.net/library_management.borrowers

Connect Edit View Collection Help

hitesh.exxonfl.m... {} My Queries library_management borrowers borrowers

library_management > borrowers

Documents 0 Aggregations Schema Indexes 1 Validation

Type a query: { field: 'value' } or [Generate query](#)

Explain Reset Find Options

ADD DATA EXPORT DATA UPDATE DELETE 1 - 6 of 6

```
{ "_id": ObjectId("6609dfb19e55cae94e887e3"),
  "name": "Alice",
  "membership": "Gold" }
{ "_id": ObjectId("6609dfb19e55cae94e887e4"),
  "name": "Bob",
  "membership": "Gold" }
```

```
>_MONOOSH
}
> db.books.find({ category: "Classic" })
< {
  _id: ObjectId('6609df739e55cae94e887e2'),
  title: 'The Great Gatsby',
  author: 'F. Scott Fitzgerald',
  category: 'Classic',
  copies: 8
}
{
  _id: ObjectId('6609e7ab9c22528d862632be'),
  title: '"To Kill a Mockingbird"',
  author: '"Harper Lee"',
  category: 'Classic',
  copies: 3
}
Atlas atlas-z9q7jt-shard-0 [primary] library_management> db.borrowers.deleteOne({ name: "Alice" })
```

Windows taskbar: Search, 25°C, 18:25, 31-03-2024

MongoDB Compass - hitesh.exxonfl.mongod.net/library_management.books

Connect Edit View Collection Help

hitesh.exxonfl.m... {} My Queries library_management borrowers books

library_management > books

Documents 2 Aggregations Schema Indexes 1 Validation

Type a query: { field: 'value' } or [Generate query](#)

[ADD DATA](#) [EXPORT DATA](#) [UPDATE](#) [DELETE](#) 1 - 5 of 5

```
{
  "_id": ObjectId('6609df739e55cae94e887e2'),
  "title": "The Great Gatsby",
  "author": "F. Scott Fitzgerald",
  "category": "Classic",
  "copies": 8
}
```

```
{
  "_id": ObjectId('6609e7ab9c22528d8626326e'),
  "title": "'To Kill a Mockingbird'",
  "author": "'Harper Lee'",
  "category": "Classic",
  "copies": 3
}
```

Atlas atlas-z9q7jt-shard-0 [primary] library_management>

```
> db.books.find({ category: "Classic" })
< [
  {
    "_id": ObjectId('6609df739e55cae94e887e2'),
    "title": 'The Great Gatsby',
    "author": 'F. Scott Fitzgerald',
    "category": 'Classic',
    "copies": 8
  },
  {
    "_id": ObjectId('6609e7ab9c22528d8626326e'),
    "title": "'To Kill a Mockingbird'",
    "author": "'Harper Lee'",
    "category": "Classic",
    "copies": 3
  }
]
```

1 - 5 of 5

```
{
  "_id": ObjectId('6609df739e55cae94e887e2'),
  "title": "The Great Gatsby",
  "author": "F. Scott Fitzgerald",
  "category": "Classic",
  "copies": 8
}
```

```
{
  "_id": ObjectId('6609e7ab9c22528d8626326e'),
  "title": "'To Kill a Mockingbird'",
  "author": "'Harper Lee'",
  "category": "Classic",
  "copies": 3
}
```

```
{
  "_id": ObjectId('6609e9399e55cae94e887e5'),
  "title": "1984",
  "author": "George Orwell",
  "category": "Dystopian",
  "copies": 7
}
```

1 - 5 of 5

```
> db.books.findOne({ title: "The Great Gatsby" })
< {
  "_id": ObjectId('6609df739e55cae94e887e2'),
  "title": 'The Great Gatsby',
  "author": 'F. Scott Fitzgerald',
  "category": 'Classic',
  "copies": 8
}
```

Atlas atlas-z9q7jt-shard-0 [primary] library_management>

MongoDB Compass - hitesh.exxonfl.mongodb.net/library_management.borrowers

Connect Edit View Collection Help

hitesh.exxonfl.m... My Queries library_management borrowers borrowers

library_management > borrowers

Documents 0 Aggregations Schema Indexes 1 Validation

Type a query: { field: 'value' } or [Generate query](#)

Explain Reset Find Options

ADD DATA EXPORT DATA UPDATE DELETE 1 - 6 of 6

_id: ObjectId('6689dfb19e55cae94e887e3')
name: "Alice"
membership: "Gold"
_id: ObjectId('6689dfb19e55cae94e887e4')
name: "Bob"
membership: "Gold"
_id: ObjectId('6689e9d59e55cae94e887ec')
name: "Alice"
membership: "Gold"
_id: ObjectId('6689e9d59e55cae94e887ed')
name: "Bob"
membership: "Gold"

1-6 of 6

MONGOSH

```
modifiedCount: 1,
upsertedCount: 0
}
> db.borrowers.updateMany(
  { membership: "Silver" },
  { $set: { membership: "Gold" } }
)
{
  acknowledged: true
}
```

18:10 31-03-2024

MongoDB Compass - hitesh.exxonfl.mongodb.net/library_management.borrowers

Connect Edit View Collection Help

hitesh.exxonfl.m... My Queries library_management borrowers borrowers

library_management > borrowers

Documents 0 Aggregations Schema Indexes 1 Validation

Type a query: { field: 'value' } or [Generate query](#)

Explain Reset Find Options

ADD DATA EXPORT DATA UPDATE DELETE 1 - 6 of 6

_id: ObjectId('6689dfb19e55cae94e887e3')
name: "Alice"
membership: "Gold"
_id: ObjectId('6689dfb19e55cae94e887e4')
name: "Bob"
membership: "Silver"
_id: ObjectId('6689e9d59e55cae94e887ec')
name: "Alice"
membership: "Gold"
_id: ObjectId('6689e9d59e55cae94e887ed')
name: "Bob"
membership: "Silver"

1-6 of 6

MONGOSH

```
}
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 1,
  modifiedCount: 1,
  upsertedCount: 0
}
Atlas atlas-z9q7jt-shard-0 [primary] library_management>
```

18:09 31-03-2024

MongoDB Compass - hitesh.exxonfl.mongodb.net/library_management.books

Connect Edit View Collection Help

hitesh.exxonfl.m... {} My Queries library_management borrowers books

library_management > books

Documents 2 Aggregations Schema Indexes 1 Validation

Type a query: { field: 'value' } or [Generate query](#)

Explain Reset Find Options

ADD DATA EXPORT DATA UPDATE DELETE 1 - 5 of 5

AFTER

```
{
  "_id": ObjectId('6609df739e55cae94e887e2'),
  "title": "The Great Gatsby",
  "author": "F. Scott Fitzgerald",
  "category": "Classic",
  "copies": 8
}
```

```
{
  "_id": ObjectId('6609e7ab9c22528d8626326e'),
  "title": "'To Kill a Mockingbird'",
  "author": "'Harper Lee'",
  "category": "Classic",
  "copies": 3
}
```

```
{
  "_id": ObjectId('6609e9399e55cae94e887e5'),
  "title": "1984",
  "author": "George Orwell",
  "category": "Dystopian",
  "copies": 7
}
```

> MONGODB

```
}
> db.books.updateOne(
  { title: "The Great Gatsby" },
  { $set: { copies: 8 } }
)
< {
  acknowledged: true,
  insertedId: null,
  matchedCount: 1.
}
```

18:08 31-03-2024

MongoDB Compass - hitesh.exxonfl.mongodb.net/library_management.books

Connect Edit View Collection Help

hitesh.exxonfl.m... {} My Queries library_management borrowers books

library_management > books

Documents 2 Aggregations Schema Indexes 1 Validation

Type a query: { field: 'value' } or [Generate query](#)

Explain Reset Find Options

ADD DATA EXPORT DATA UPDATE DELETE 1 - 5 of 5

BEFORE

```
{
  "_id": ObjectId('6609df739e55cae94e887e2'),
  "title": "The Great Gatsby",
  "author": "F. Scott Fitzgerald",
  "category": "Classic",
  "copies": 5
}
```

```
{
  "_id": ObjectId('6609e7ab9c22528d8626326e'),
  "title": "'To Kill a Mockingbird'",
  "author": "'Harper Lee'",
  "category": "Classic",
  "copies": 3
}
```

```
{
  "_id": ObjectId('6609e9399e55cae94e887e5'),
  "title": "1984",
  "author": "George Orwell",
  "category": "Dystopian",
  "copies": 7
}
```

> MONGODB

```
acknowledged: true,
insertedIds: {
  '0': ObjectId('6609e9db9e55cae94e887f0'),
  '1': ObjectId('6609e9db9e55cae94e887f1'),
  '2': ObjectId('6609e9db9e55cae94e887f2'),
  '3': ObjectId('6609e9db9e55cae94e887f3')
}
}
```

Atlas atlas-z9q7jt-shard-0 [primary] library_management>

18:06 31-03-2024

MongoDB Compass - hitesh.exxonfl.mongodb.net/library_management.borrowers

Connect Edit View Collection Help

hitesh.exxonfl.m... {} My Queries library_management borrowers borrowers

library_management > borrowers

Documents 0 Aggregations Schema Indexes 1 Validation

Type a query: { field: 'value' } or [Generate query](#)

Explain Reset Find Options

ADD DATA EXPORT DATA UPDATE DELETE 1 - 2 of 2

```
{ "_id": ObjectId("6609dfb19e55cae94e887e3"),  
  "name": "Alice",  
  "membership": "Gold"  
}
```

```
{ "_id": ObjectId("6609dfb19e55cae94e887e4"),  
  "name": "Bob",  
  "membership": "Silver"  
}
```

>_MONGOSH

```
insertedId: ObjectId('6609df739e55cae94e887e2')  
{  
}  
> db.borrowers.insertMany([  
  { name: "Alice", membership: "Gold" },  
  { name: "Bob", membership: "Silver" }  
)  
> {  
  acknowledged: true,
```

MongoDB Compass - hitesh.exxonfl.mongodb.net/library_management.books

Connect Edit View Collection Help

hitesh.exxonfl.m... {} My Queries library_management borrowers books

library_management > books

Documents 1 Aggregations Schema Indexes 1 Validation

Type a query: { field: 'value' } or [Generate query](#)

Explain Reset Find Options

ADD DATA EXPORT DATA UPDATE DELETE 1 - 1 of 1

```
{ "_id": ObjectId("6609df739e55cae94e887e2"),  
  "title": "The Great Gatsby",  
  "author": "F. Scott Fitzgerald",  
  "category": "Classic",  
  "copies": 5  
}
```

>_MONGOSH

```
> db.books.insertOne({  
  title: "The Great Gatsby",  
  author: "F. Scott Fitzgerald",  
  category: "Classic",  
  copies: 5  
})  
> {
```

MongoDB Compass - hitesh.exxonfl.mongodb.net/library_management

Connect Edit View Help

hitesh.exxonfl.m... {} My Queries library_management X borrowers +

My Queries Performance Databases Search

- Tennis
- admin
- config
- library
- library_manageme... + -
- authors
- books
- borrowers
- categories
- loans
- local
- sample_airbnb
- sample_analytics
- sample_geospatial

Storage size:	Documents:	Avg. document size:	Indexes:	Total index size:
authors				
books				
borrowers				
Storage size: 4.10 kB	Documents: 0	Avg. document size: 0 B	Indexes: 1	Total index size: 4.10 kB
categories				
loans				

>_MONGOOSH

```
> db.createCollection("books")
> db.createCollection("borrowers")
> db.createCollection("loans")
> db.createCollection("categories")
> db.createCollection("authors")
< { ok: 1 }
```

Atlas atlas-z9q7jt-shard-0 [primary] library_management>

Windows taskbar: Search, 25°, 31-03-2024, 17:03

MongoDB Compass - hitesh.exxonfl.mongodb.net/library_management

Connect Edit View Help

hitesh.exxonfl.m... {} My Queries library_management X +

+ Create collection Refresh View Sort by Collection Name

Storage size:	Documents:	Avg. document size:	Indexes:	Total index size:
4.10 kB	0	0 B	1	4.10 kB

Books

Books

- local
- sample_airbnb
- sample_analytics
- sample_geospatial
- sample_guides
- sample_mflix
- sample_restaurants

>_MONGOOSH

```
> use library_management
< switched to db library_management
> db.createCollection("Books")
< { ok: 1 }
```

Atlas atlas-z9q7jt-shard-0 [primary] library_management>

Windows taskbar: Search, 12:31, 26-03-2024