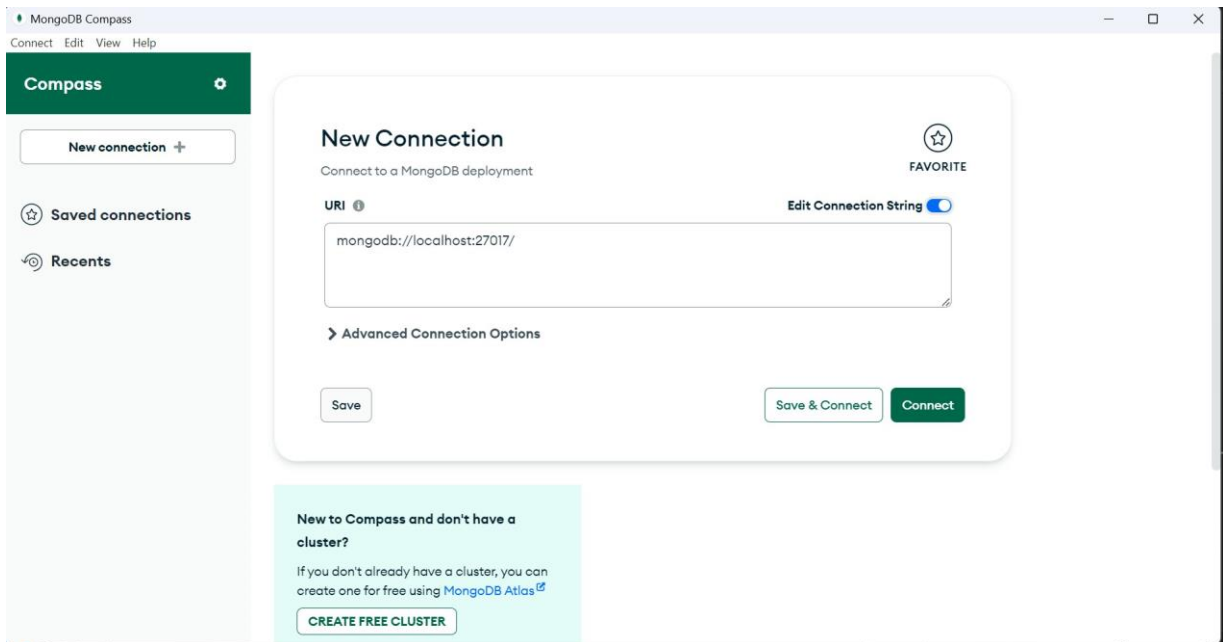


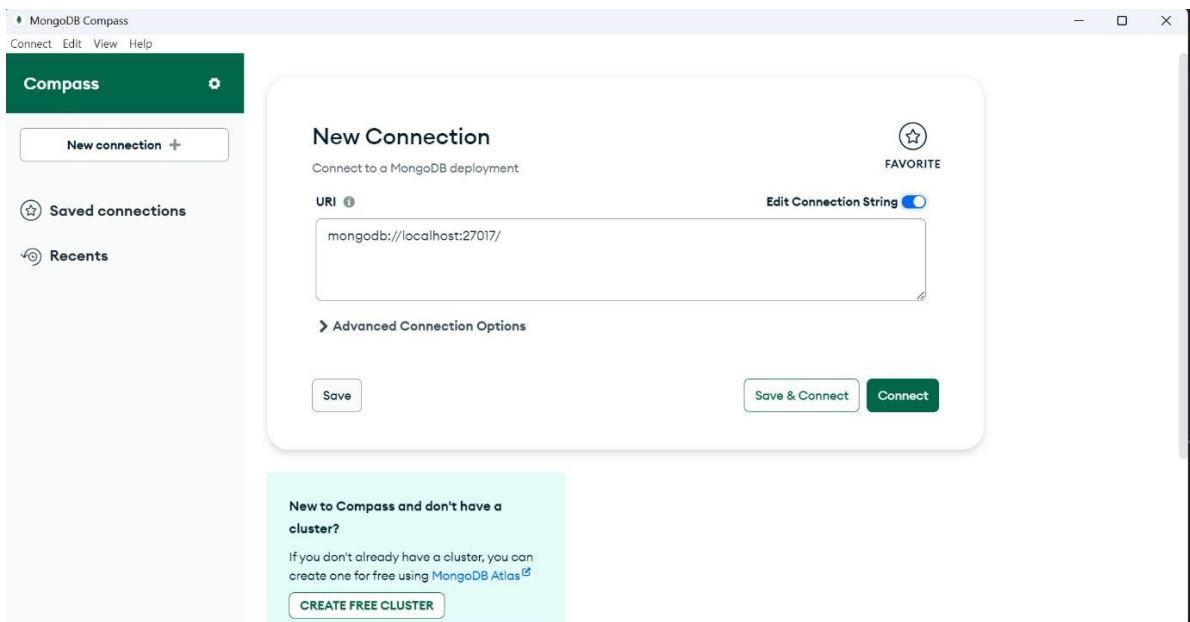
WEB TECHNOLOGY

LAB-9

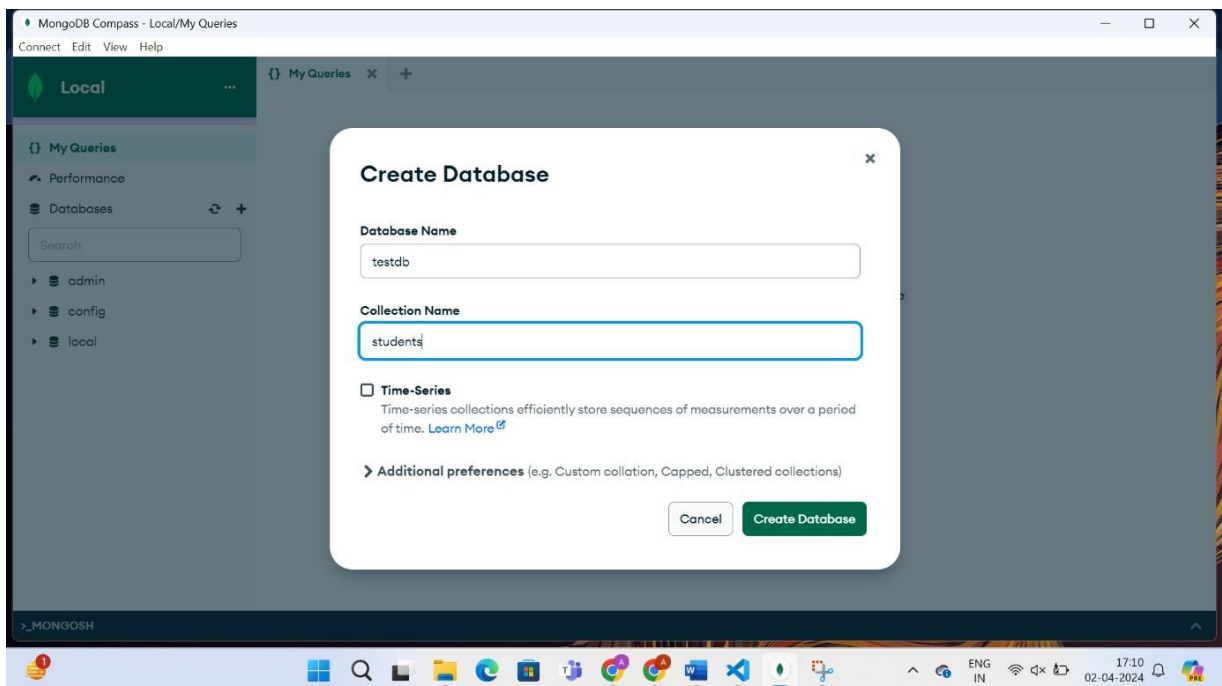
Connect to a MongoDB server using MongoDB Compass.



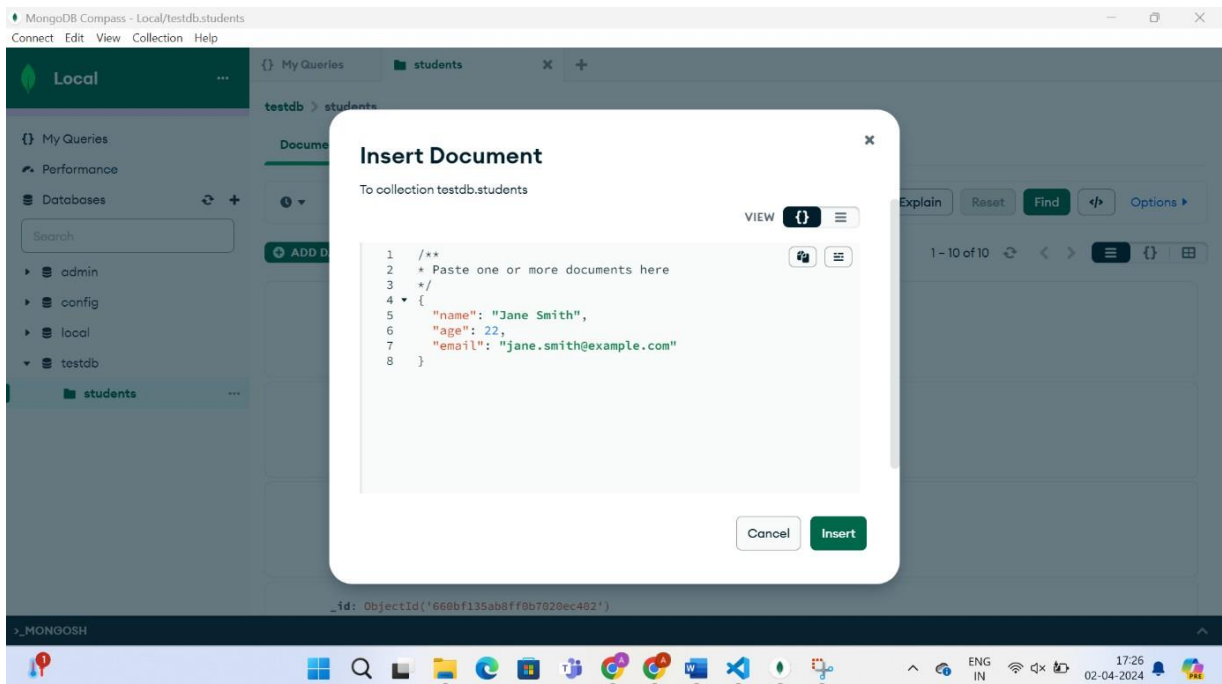
Create a new database named "testdb" in MongoDB Compass.



Create a new collection named "students" in the "testdb" database.



Insert ten documents into the "students" collection with the following fields:
name, age, and email.



View the contents of the "students" collection.

MongoDB Compass - Local/testdb.students

Connect Edit View Collection Help

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Documents 10 Aggregations Schema Indexes 1 Validation

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

Explain Reset Find Options

ADD DATA EXPORT DATA UPDATE DELETE

1 - 10 of 10

	_id ObjectId	name String	age Int32	email String
1	ObjectId('660bf0f7ab8ff0b...')	"John Doe"	20	"john.doe@example.com"
2	ObjectId('660bf113ab8ff0b...')	"Jane Smith"	22	"jane.smith@example.com"
3	ObjectId('660bf126ab8ff0b...')	"Michael Johnson"	21	"michael.johnson@example.com"
4	ObjectId('660bf135ab8ff0b...')	"Emily Brown"	19	"emily.brown@example.com"
5	ObjectId('660bf14dab8ff0b...')	"David Wilson"	23	"david.wilson@example.com"
6	ObjectId('660bf1b7ab8ff0b...')	"Sarah Martinez"	20	"sarah.martinez@example.com"
7	ObjectId('660bf1c9ab8ff0b...')	"Christopher Taylor"	24	"christopher.taylor@example.com"
8	ObjectId('660bf1daab8ff0b...')	"Jessica Anderson"	22	"jessica.anderson@example.com"
9	ObjectId('660bf1e8ab8ff0b...')	"Ryan Thomas"	21	"ryan.thomas@example.com"
10	ObjectId('660bf1f8ab8ff0b...')	"Amanda Garcia"	20	"amanda.garcia@example.com"

>_MONGOSH

17:28 02-04-2024

Update the age of a specific student in the "students" collection.

MongoDB Compass - Local/testdb.students

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Type a query: {}

Generate query Explain Reset Find Options

ADD DATA EXPORT DATA UPDATE DELETE

1 - 10 of 10

```
1 {
  2   _id: ObjectId('660bf0f7ab8ff0b702ec3fc'),
  3   name: "John Doe",
  4   age: 25,
  5   email: "john.doe@example.com"
}
```

Document modified.

CANCEL UPDATE

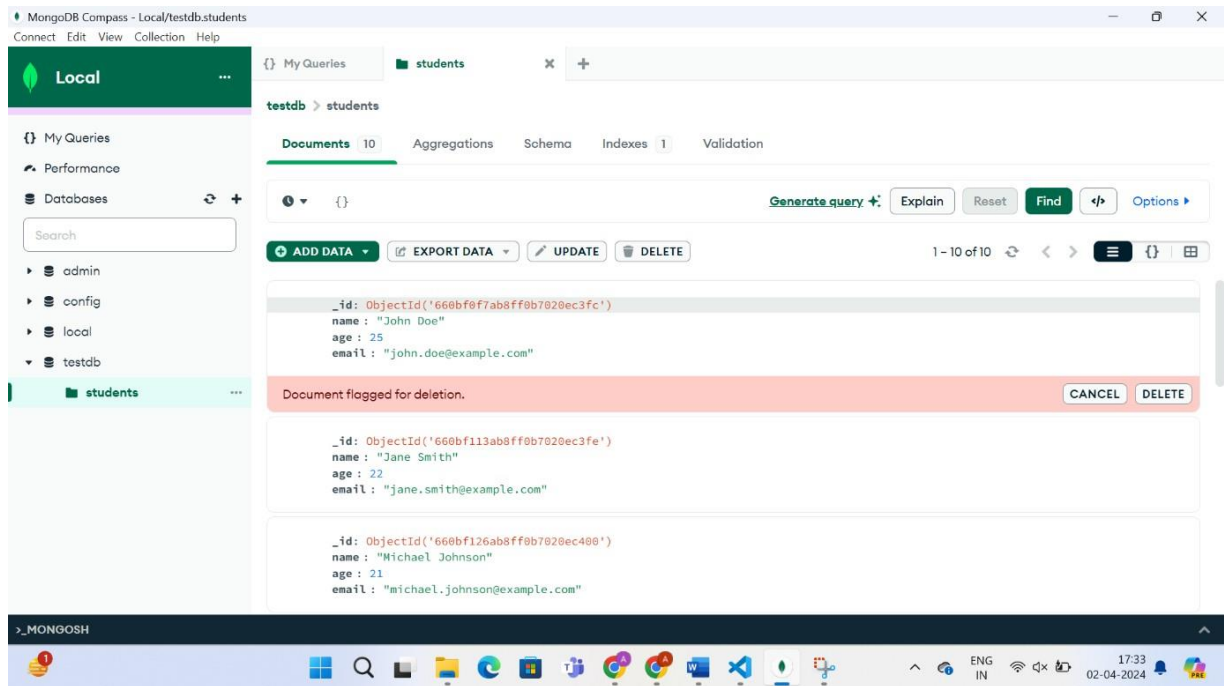
```
{
  "_id": ObjectId('660bf113ab8ff0b702ec3fe'),
  "name": "Jane Smith",
  "age": 22,
  "email": "jane.smith@example.com"
}
```

```
{
  "_id": ObjectId('660bf126ab8ff0b702ec400'),
  "name": "Michael Johnson",
  "age": 21,
  "email": "michael.johnson@example.com"
}
```

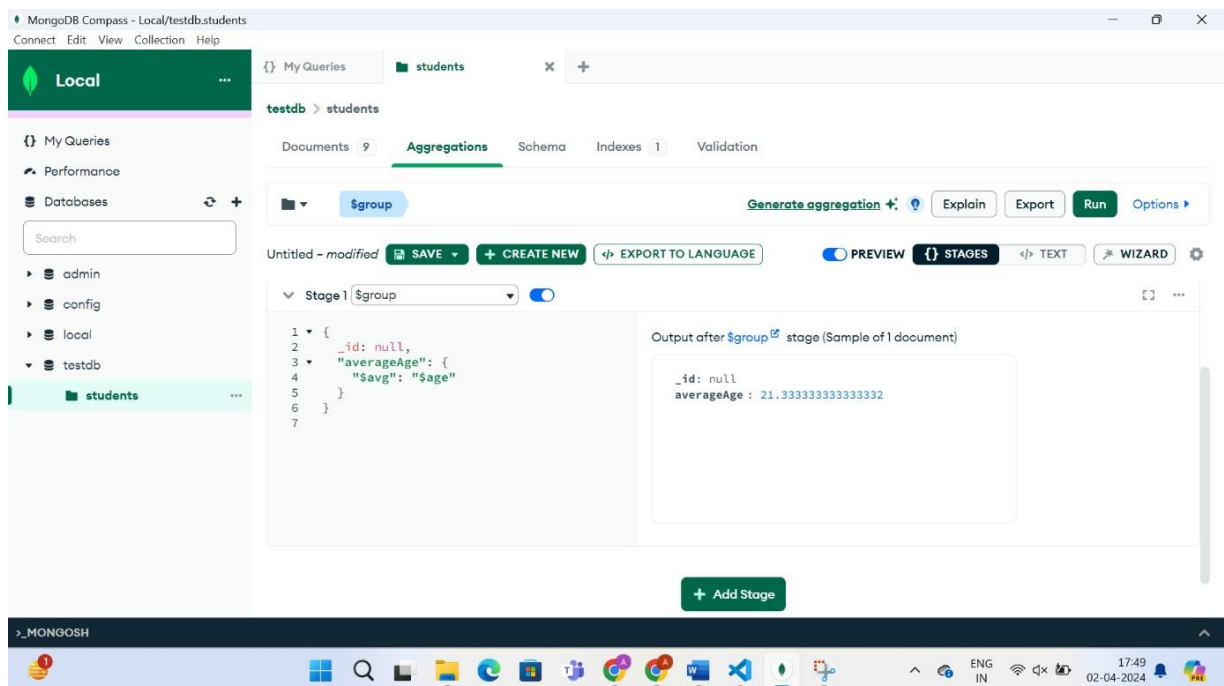
>_MONGOSH

17:31 02-04-2024

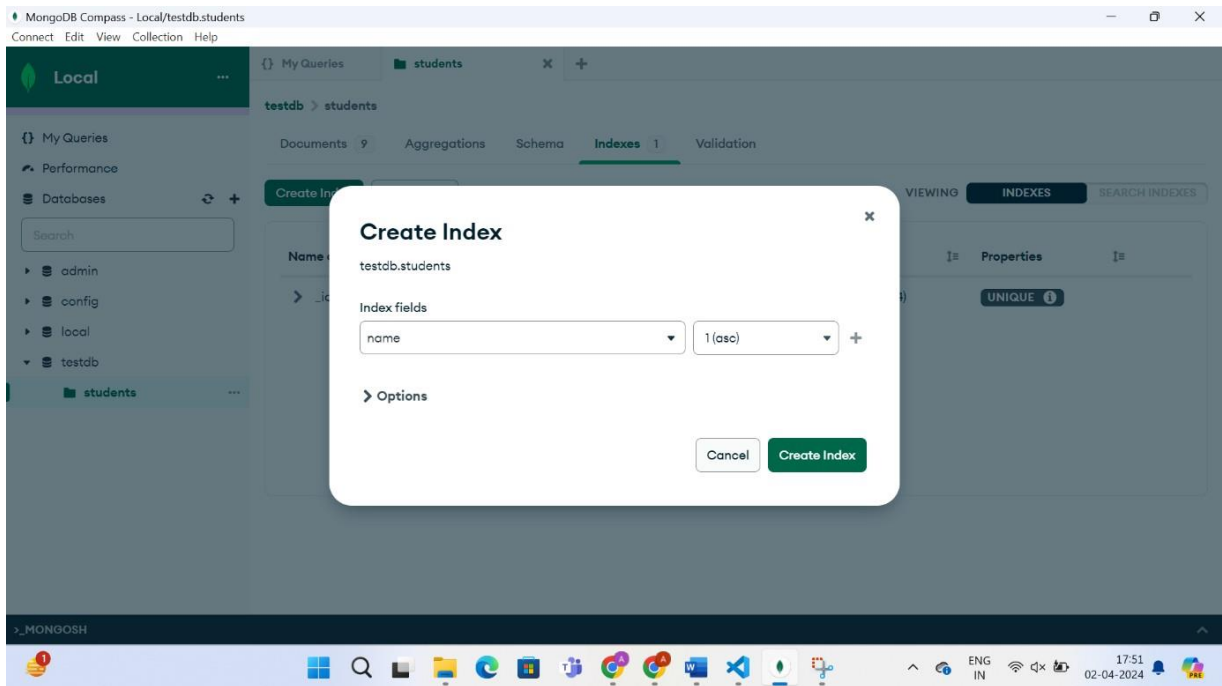
Delete a document from the "students" collection based on a specific condition.



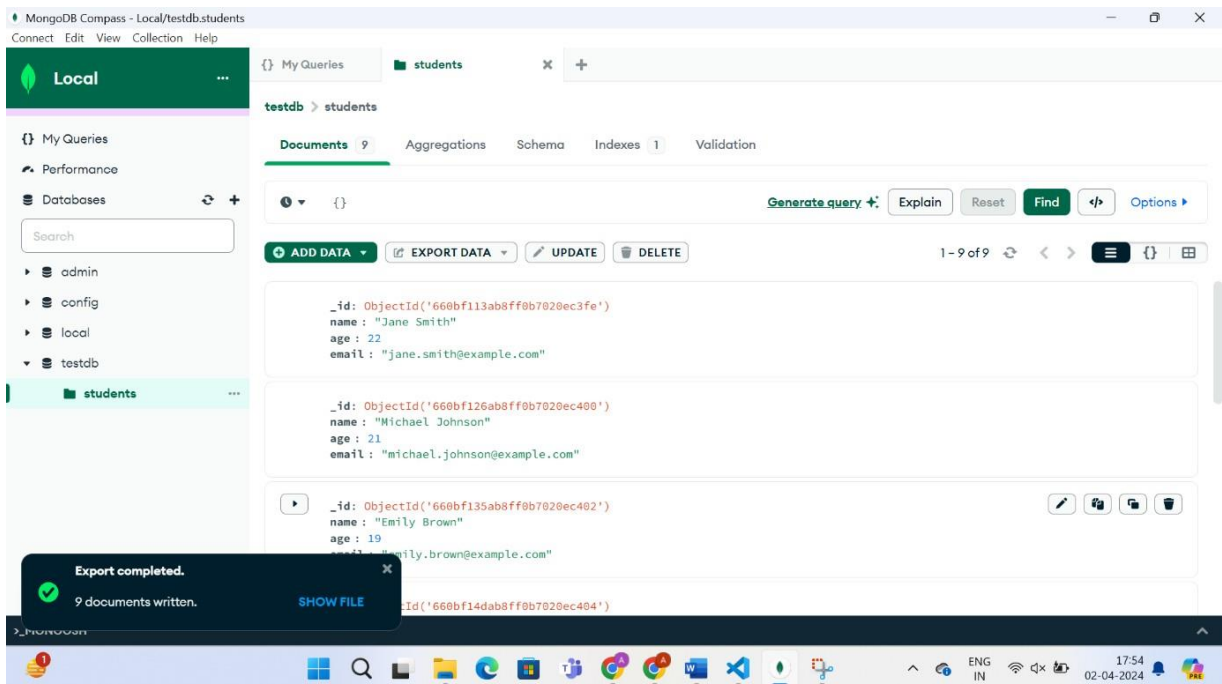
Use the aggregation pipeline to calculate the average age of all students in the "students" collection.



Create an index on the "name" field in the "students" collection.



Export the contents of the "students" collection to a JSON file.



Perform a complex aggregation operation to find the top 5 oldest students in the "students" collection.

MongoDB Compass - Local/testdb.students

Connect Edit View Collection Help

Local

My Queries Performance Databases Search

admin config local testdb students

students

testdb > students

Documents 9 Aggregations Schema Indexes 1 Validation

\$group \$sort Generate aggregation Explain Export Run Options

Untitled - modified SAVE CREATE NEW EXPORT TO LANGUAGE PREVIEW STAGES TEXT WIZARD

Stage 2 \$sort

```
1 [
2   {
3     "$sort": {
4       "age": -1
5     },
6   },
7   {
8     "$limit": 5
9   }
10 ]
```

>_MONGOSH

Windows taskbar: 17:56 02-04-2024

Create a geospatial index on a field representing the location of students.

MongoDB Compass - Local/testdb.students

Connect Edit View Collection Help

Local

My Queries Performance Databases Search

admin config local testdb students

students

testdb > students

Documents 9 Aggregations Schema Indexes 1 Validation

Create Index Refresh VIEWING INDEXES SEARCH INDEXES

Name and Definition	Type	Size	Usage	Properties
> _id_	REGULAR	36.9 KB	13 (since Tue Apr 02 2024)	UNIQUE
> name_1	REGULAR	20.5 KB	0 (since Tue Apr 02 2024)	
> students_2dsphere	GEOSPATIAL	8.2 KB	0 (since Tue Apr 02 2024)	

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Windows taskbar: 17:59 02-04-2024