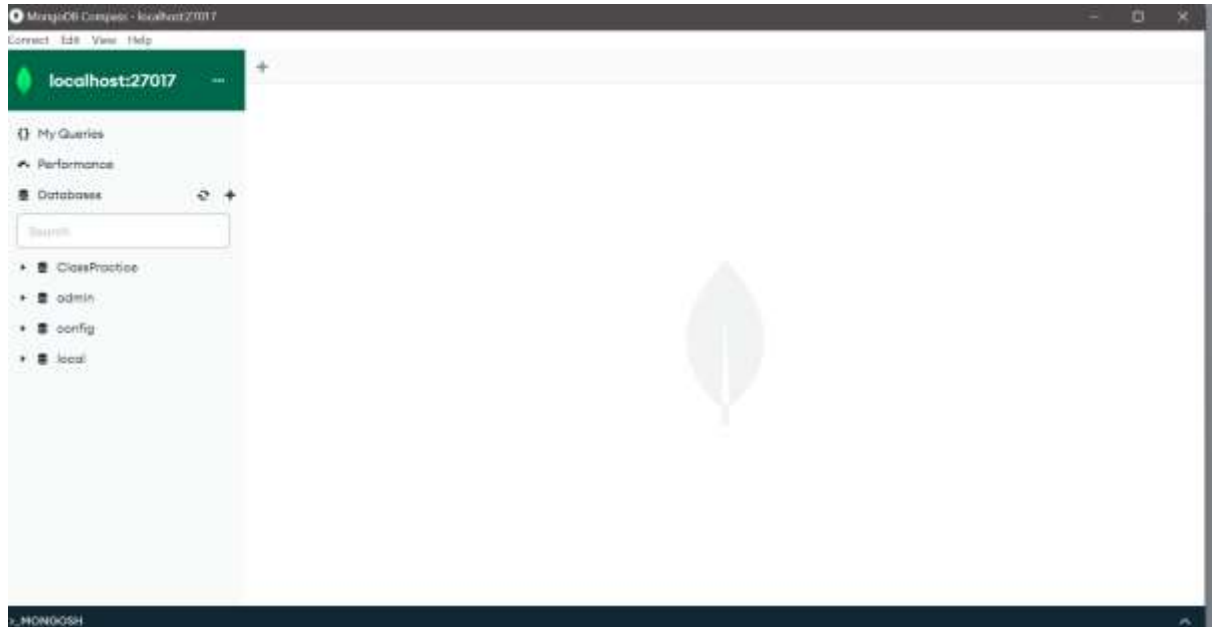


## WEB TECHNOLOGY LAB

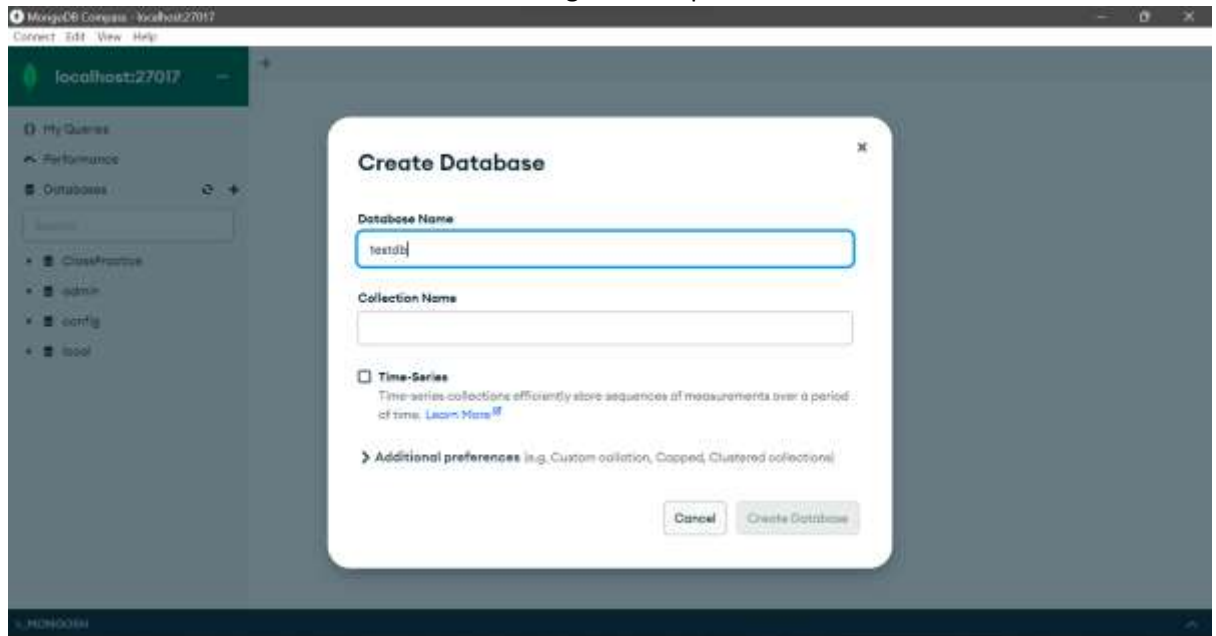
### Assignment- 10

Name- Parminder Singh Roll No- 22CS2030 Branch- IDD

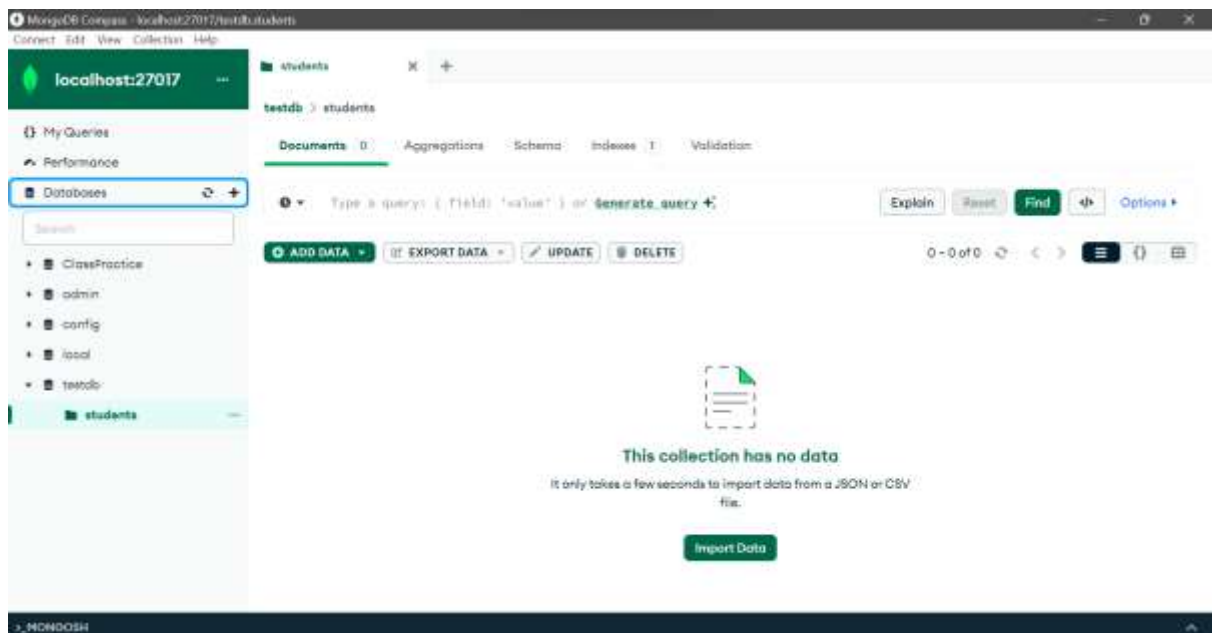
1. Connect to a MongoDB server using MongoDB Compass.



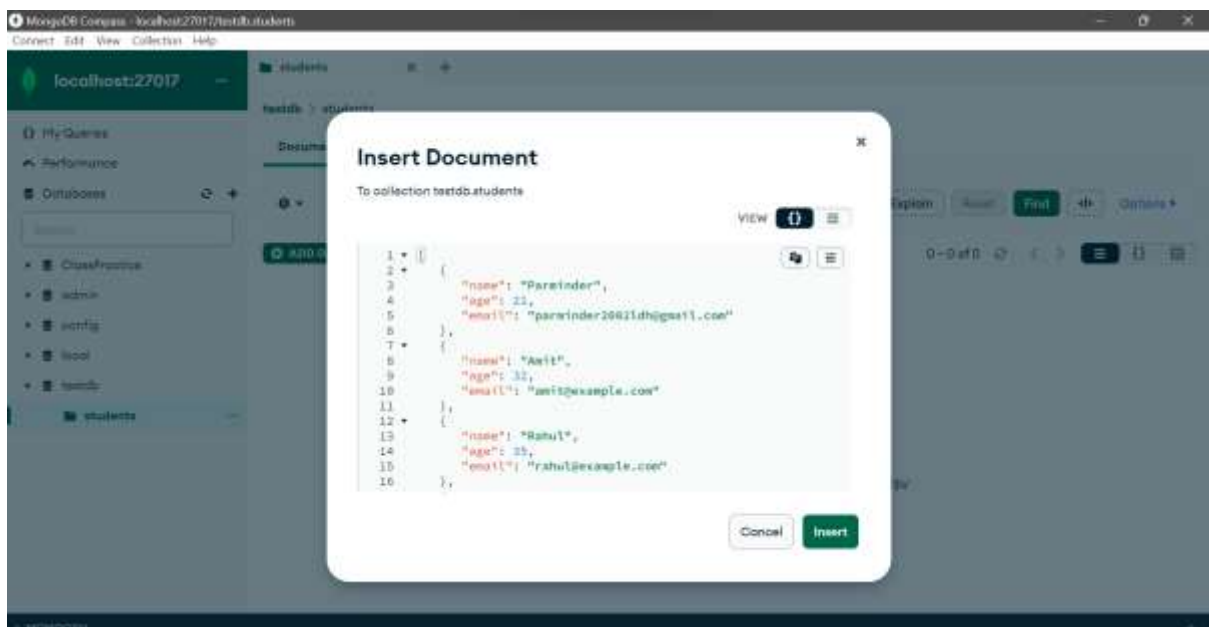
2. Create a new database named "testdb" in MongoDB Compass.



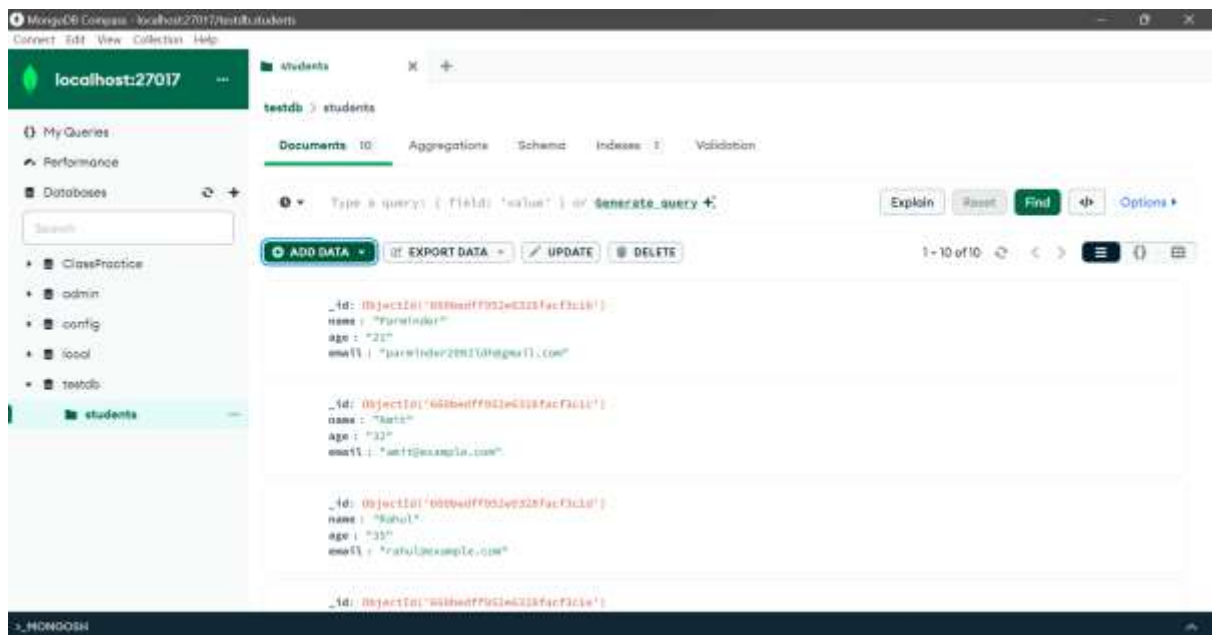
3. Create a new collection named "students" in the "testdb" database.



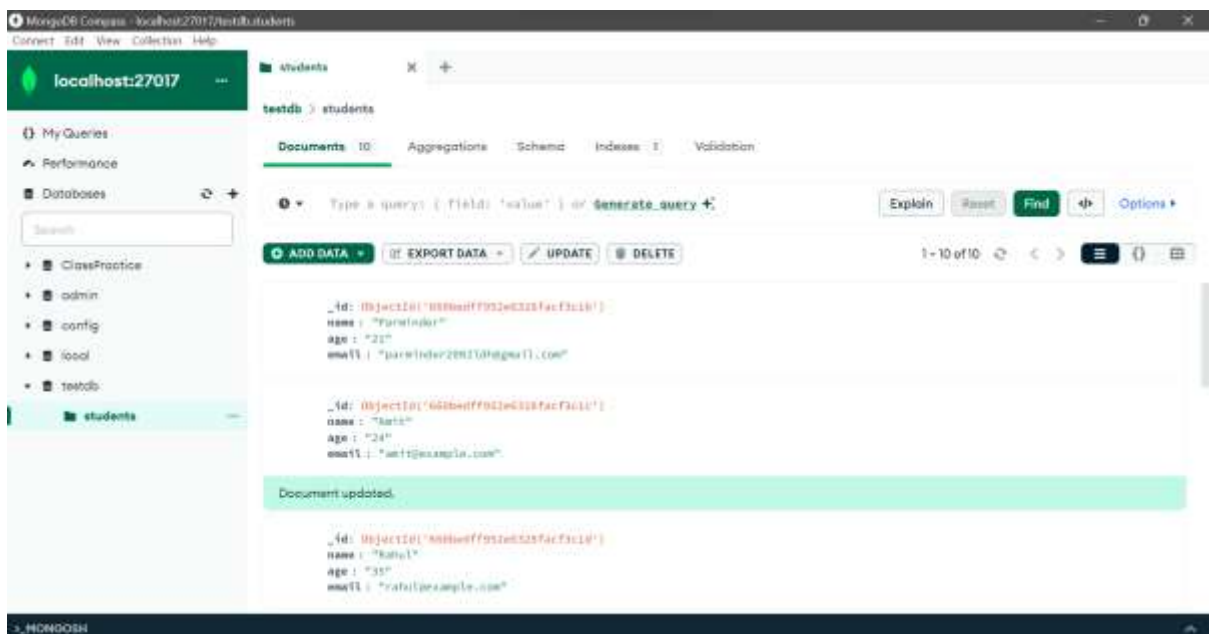
4. Insert ten documents into the "students" collection with the following fields:  
name, age, and email.



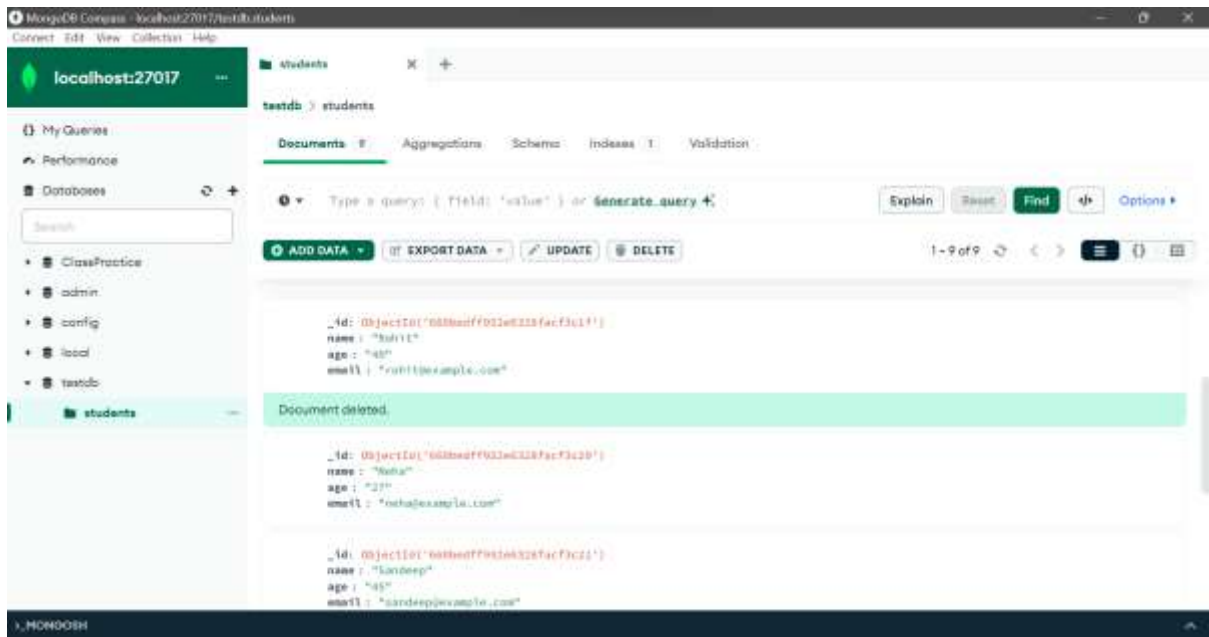
5. View the contents of the "students" collection.



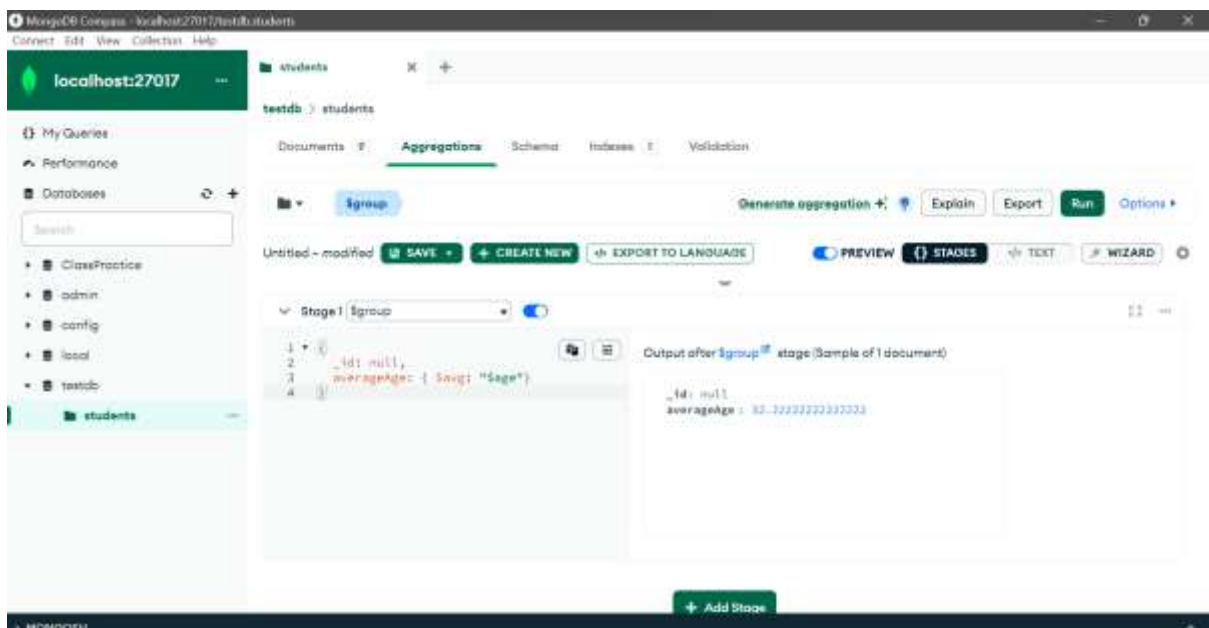
6. Update the age of a specific student in the "students" collection.



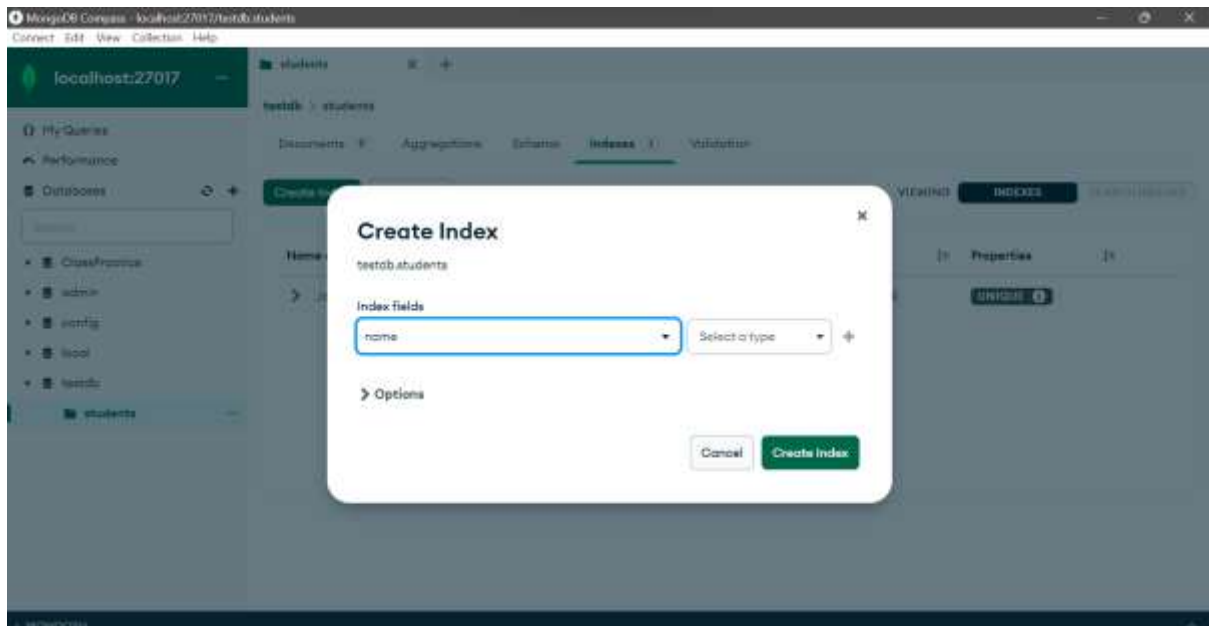
7. Delete a document from the "students" collection based on a specific condition.



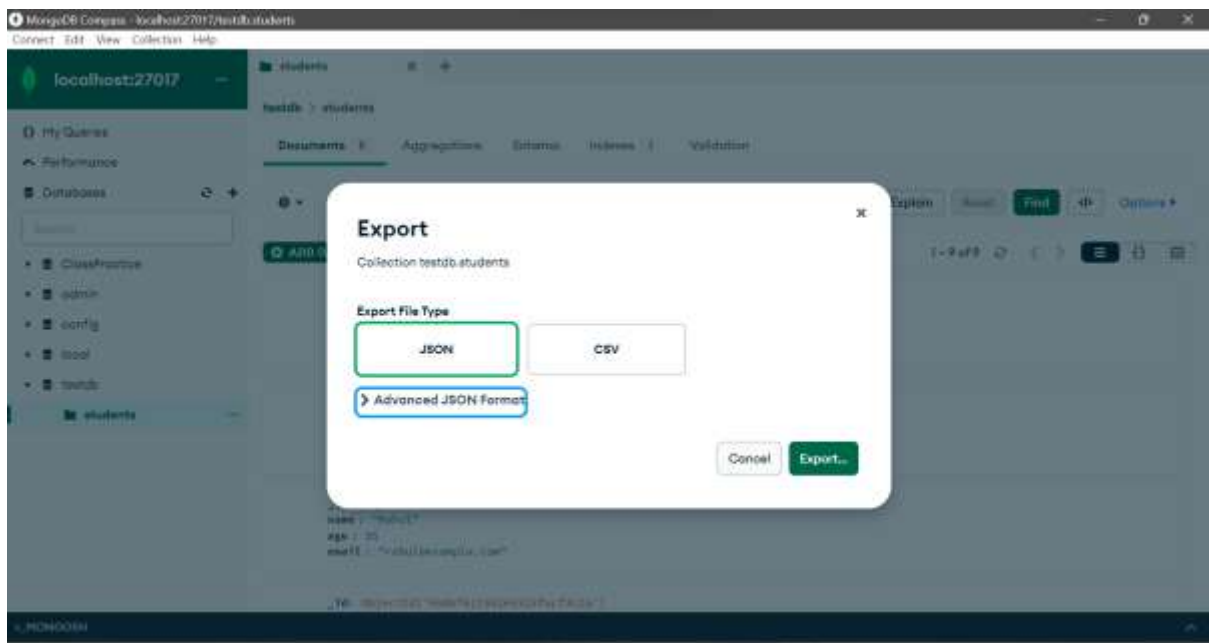
8. Use the aggregation pipeline to calculate the average age of all students in the "students" collection.



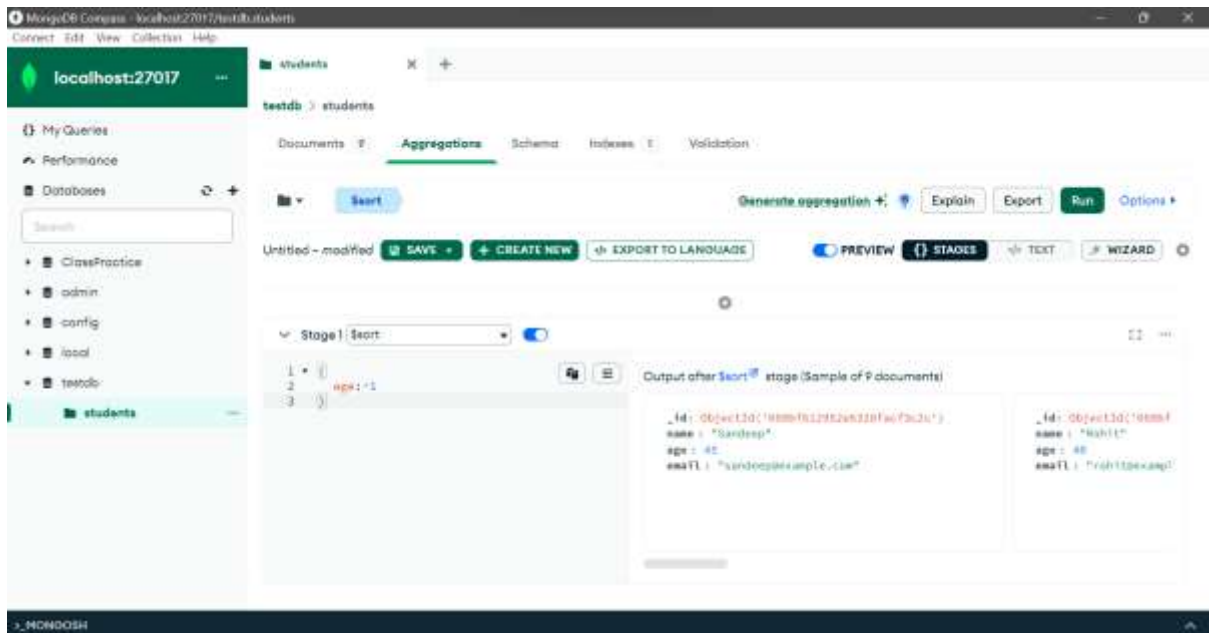
9. Create an index on the "name" field in the "students" collection.



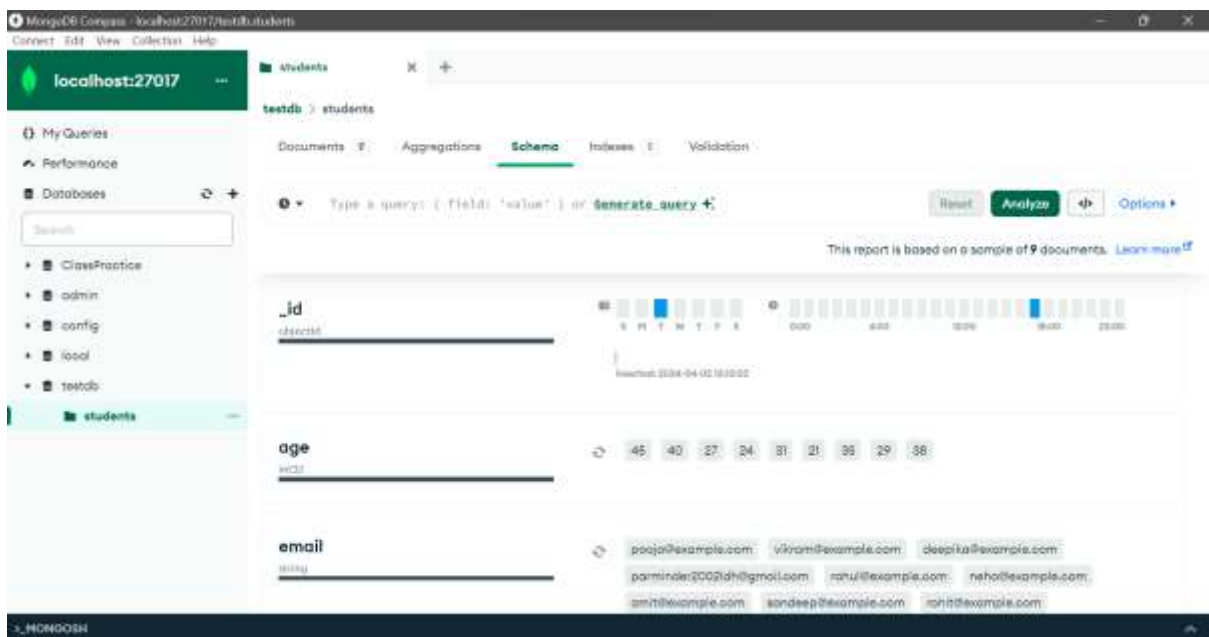
10. Export the contents of the "students" collection to a JSON file.



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



13. Use MongoDB Compass to visualize the data distribution in the "students" collection.



14. Set up a data validation rule to ensure that documents in the "students" collection must have a non-empty name field.

localhost:27017

My Queries

Performance

Databases

Search

ClassPractice

admin

config

local

testdb

students

students

testdb > students

Documents Aggregations Schema Indexes Validation

Validation Action Error Validation Level Strict

```
1 {
2   $jsonSchema: {
3     bsonType: 'object',
4     required: [
5       'name'
6     ],
7     properties: {
8       name: {
9         bsonType: 'string',
10        minLength: 1,
11        description: 'must be a non-empty string'
12      }
13    }
14  }
15 }
```

Sample documents

Passed validation

Failed validation

```
{_id: ObjectId('60bfe1353e6c328faef5a28'),
name: "Rahul",
age: 30}
```

MONDOOSH