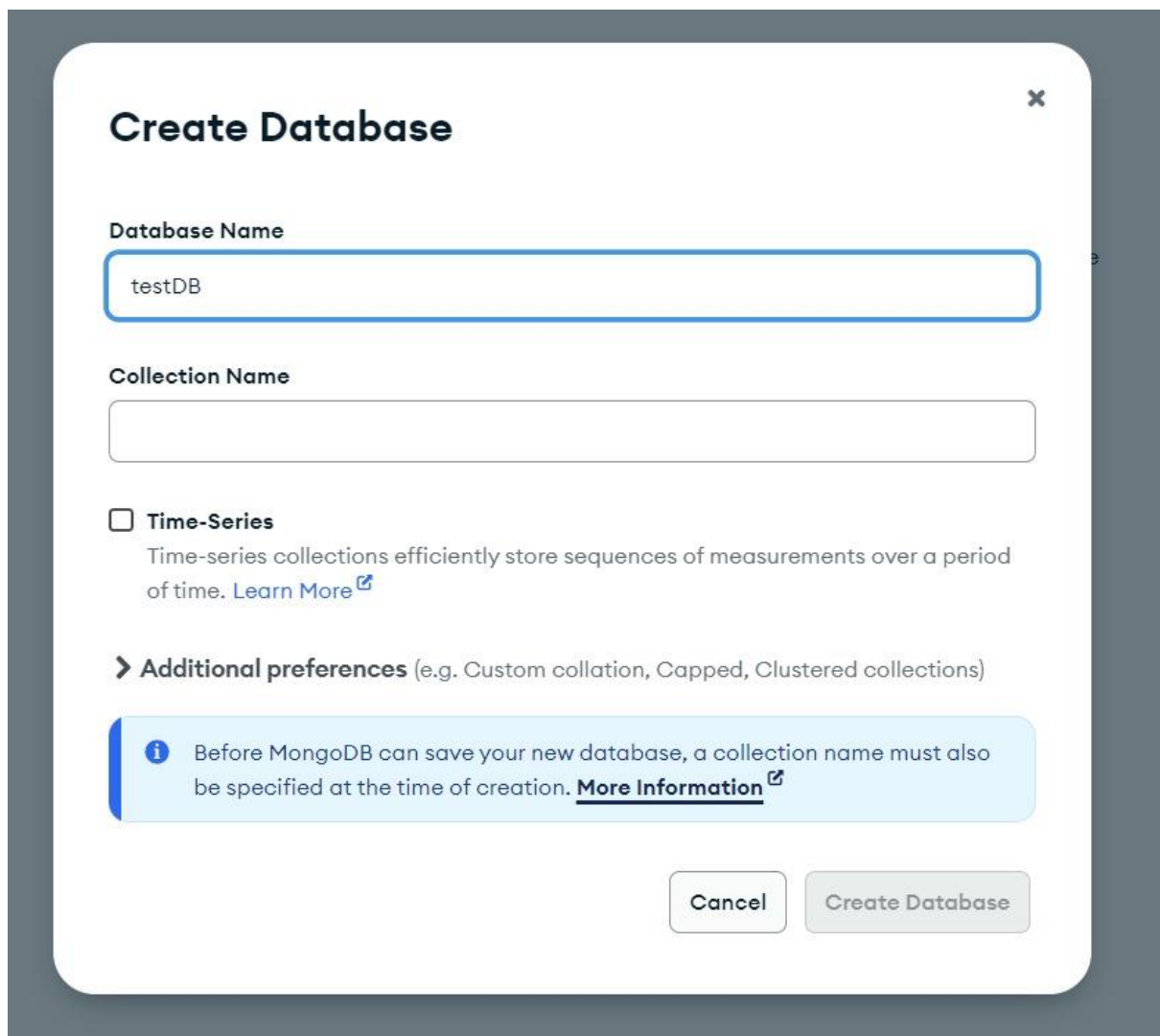


# LAB - 10

NAME - RAVI SHEKHAR

ROLL - 22CS3075



The image shows a 'Create Database' dialog box from MongoDB. It has a title bar with a close button (X). The main content area includes a 'Database Name' field with the text 'testDB', a 'Collection Name' field which is empty, and a checkbox for 'Time-Series' which is unchecked. Below the checkbox is a description: 'Time-series collections efficiently store sequences of measurements over a period of time. [Learn More](#)'. There is also a section for 'Additional preferences' with a right-pointing arrow and the text '(e.g. Custom collation, Capped, Clustered collections)'. At the bottom, there is a light blue information box with an 'i' icon and the text: 'Before MongoDB can save your new database, a collection name must also be specified at the time of creation. [More Information](#)'. At the very bottom are two buttons: 'Cancel' and 'Create Database'.

## Create Database

Database Name

Collection Name

☐ Time-Series

Time-series collections efficiently store sequences of measurements over a period of time. [Learn More](#)

➤ Additional preferences (e.g. Custom collation, Capped, Clustered collections)

**i** Before MongoDB can save your new database, a collection name must also be specified at the time of creation. [More Information](#)

CancelCreate Database

testDB.students

10  
DOCUMENTS1  
INDEXES

Documents Aggregations Schema Indexes Validation

Filter { "name": "Bob Johnson" }

Generate query Explain Reset Find Options

ADD DATA EXPORT DATA

1-1 of 1

```
{
  "_id": ObjectId("660be40c82bc705bb7bbf5cd"),
  "name": "Bob Johnson",
  "age": 21,
  "email": "bob.johnson@example.com"
}
```

Document flagged for deletion.

CANCEL DELETE

## Create Index

testDB.students

Index fields

location

2dsphere

&gt; Options

Cancel

Create Index

testDB.students

9  
DOCUMENTS1  
INDEXES

Documents Aggregations Schema Indexes Validation

Pipeline

\$group

Explain Export Run More Options

average

Generate

Untitled - modified SAVE CREATE NEW EXPORT TO LANGUAGE

PREVIEW STAGES TEXT

Stage 1 \$group

```
1 {
2   _id: null,
3   average: {
4     $avg: "$age",
5   },
6 }
```

Output after \$group stage (Sample of 1 document)

```
{
  "_id": null,
  "average": 22.88888888888889
}
```

+ Add Stage

[Learn more about aggregation pipeline stages](#)

Project

{ field: 0 }

Sort

{ "age": -1 }

MaxTimeMS

60000

Collation

{ locale: 'simple' }

Skip

0

Limit

0

ADD DATA

EXPORT DATA

1 - 9 of 9

name: "John Doe"

age: 35

email: "john.doe@example.com"

\_id: ObjectId('660be40c82bc705bb7bbf5d3')

name: "James Brown"

age: 24

email: "james.brown@example.com"

\_id: ObjectId('660be40c82bc705bb7bbf5ce')

name: "Emily Davis"

age: 23

email: "emily.davis@example.com"

\_id: ObjectId('660be40c82bc705bb7bbf5cc')

name: "Alice Smith"

age: 22

email: "alice.smith@example.com"

testDB.students

91

DOCUMENTSINDEXES

DocumentsAggregationsSchema**Indexes**Validation

Create Index

Refresh

VIEWINGINDEXESSearch Indexes

Name and Definition	Type	Size	Usage	Properties
> _id_	REGULAR ⓘ	36.9 KB	8 (since Tue Apr 02 2024)	UNIQUE ⓘ
> name_text	TEXT ⓘ	20.5 KB	0 (since Tue Apr 02 2024)	

## Insert Document

To collection testDB.students

VIEW



```
1  [
2    {
3      "name": "John Doe",
4      "age": 20,
5      "email": "john.doe@example.com"
6    },
7    {
8      "name": "Alice Smith",
9      "age": 22,
10     "email": "alice.smith@example.com"
11   },
12   {
13     "name": "Bob Johnson",
14     "age": 21,
15     "email": "bob.johnson@example.com"
16   },
17   {
18     "name": "Emily Davis",
19     "age": 23,
20     "email": "emily.davis@example.com"
21   },
22   {
23     "name": "Michael Wilson",
24     "age": 19,
25     "email": "michael.wilson@example.com"
26   },
27   {
28     "name": "Sophia Martinez",
```

Cancel

Insert

Documents Aggregations Schema Indexes Validation

Filter  Type a query: { field: 'value' } or [Generate query](#) [Explain](#) [Reset](#) [Find](#)  [Options](#) [ADD DATA](#) [EXPORT DATA](#)1 - 10 of 10      

```
{
  "_id": ObjectId('660be40c82bc705bb7bbf5cb'),
  "name": "John Doe",
  "age": 20,
  "email": "john.doe@example.com"
}
```

```
{
  "_id": ObjectId('660be40c82bc705bb7bbf5cc'),
  "name": "Alice Smith",
  "age": 22,
  "email": "alice.smith@example.com"
}
```

```
{
  "_id": ObjectId('660be40c82bc705bb7bbf5cd'),
  "name": "Bob Johnson",
  "age": 21,
  "email": "bob.johnson@example.com"
}
```

```
{
  "_id": ObjectId('660be40c82bc705bb7bbf5ce'),
  "name": "Emily Davis",
  "age": 23,
  "email": "emily.davis@example.com"
}
```

```
{
  "_id": ObjectId('660be40c82bc705bb7bbf5cf'),
  "name": "Michael Wilson"
}
```

## Export



Collection testDB.students

### Export File Type

JSON

CSV

[Advanced JSON Format](#)

Cancel

Export...

# testDB.students

9 1  
DOCUMENTS INDEXES

Documents Aggregations **Schema** Indexes Validation

Filter {} [Generate query](#) [Reset](#) [Analyze](#) [Options](#)

**Project** { field: 0 }

**Sort** {"age": -1}

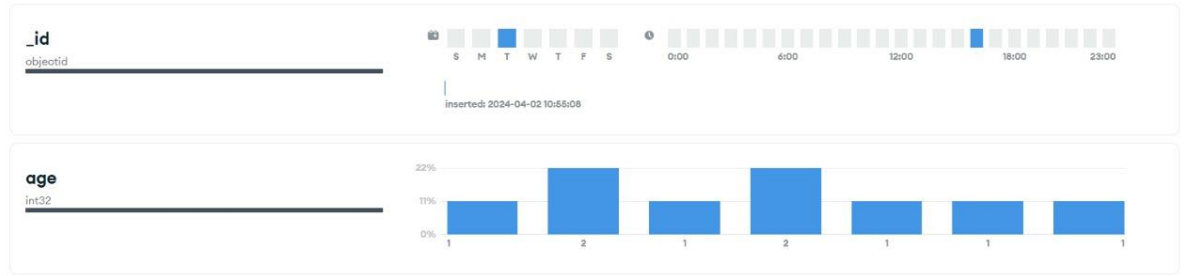
**Collation** { locale: 'simple' }

**MaxTimeMS** 60000

**Skip** 0 **Limit** 0

This report is based on a sample of 9 documents. [Learn more](#)

Looking for data modeling tools? [Check out Hackolade Studio.](#)



## MongoDB Compass - localhost:27017

Connect Edit View Help

**localhost:27017** ...

**My Queries** Databases Performance

My Queries

Databases

## Create Database



Database Name

testDB

Collection Name

students

☐ Time-Series

Time-series collections efficiently store sequences of measurements over a period of time. [Learn More](#)

➤ Additional preferences (e.g. Custom collation, Capped, Clustered collections)

Cancel

Create Database

testDB.students

10 1  
DOCUMENTS INDEXES

Documents Aggregations Schema Indexes Validation

Filter { "name": "Bob Johnson" }

Generate query Explain Reset Find Options

ADD DATA EXPORT DATA

1 - 1 of 1

```
{
  "_id": ObjectId('660be40c82bc705bb7bbf5cd'),
  "name": "Bob Johnson",
  "age": 21,
  "email": "bob.johnson@example.com"
}
```

Document flagged for deletion.

CANCEL DELETE

Validation Action  Validation Level

```
1  {  
2    required: [  
3      'name'  
4    ],  
5    properties: {  
6      name: {  
7        bsonType: 'string',  
8        description: 'Name must be a present.'  
9      }  
10   }  
11 }
```

## Sample documents

✔ Passed validation

No Preview Documents

✖ Failed validation

```
_id: ObjectId('660be40c82bc705bb7bbf5d0')
name: "Sophia Martinez"
age: 28
email: "sophia.martinez@example.com"
```

testDB.students

10

1

DOCUMENTS

INDEXES

Documents

Aggregations

Schema

Indexes

Validation

Filter

{

"name": "John Doe"

}

Generate query

Explain

Reset

Find

Options

ADD DATA

EXPORT DATA

1 of 1

≡

{}

□

1

2

3

4

ObjectId('660be40c82bc705bb7bbf5cb')

name: "John Doe"

age: 28

email: "john.doe@example.com"

ObjectId

String

Int32

String

CANCEL

UPDATE

Filter

{

"name": "John Doe"

}

Generate query

Explain

Reset

Find

Options

ADD DATA

EXPORT DATA

1 of 1

≡

{}

□

1

2

3

4

ObjectId('660be40c82bc705bb7bbf5cb')

name: "John Doe"

age: 35

email: "john.doe@example.com"

location\_2dsphere

8.2 KB

0 (since Tue Apr 02 2024)

testDB.students

9

DOCUMENTS

1

INDEXES

Documents

Aggregations

Schema

**Indexes**

Validation

Create Index

Refresh

VIEWING

**INDEXES**

SEARCH INDEXES

Name and Definition	Type	Size	Usage	Properties
> _id_	<b>REGULAR</b>	36.9 KB	10 (since Tue Apr 02 2024)	<b>UNIQUE</b>
> location_2dsphere	<b>GEOSPATIAL</b>	8.2 KB	0 (since Tue Apr 02 2024)	
> name_text	<b>TEXT</b>	20.5 KB	0 (since Tue Apr 02 2024)	



