

Lesson 02 Demo 04

Implementing Relationships in MongoDB

Objective: To create relationships between the documents in MongoDB for structuring and organizing data efficiently in the database

Tools required: MongoDB Compass

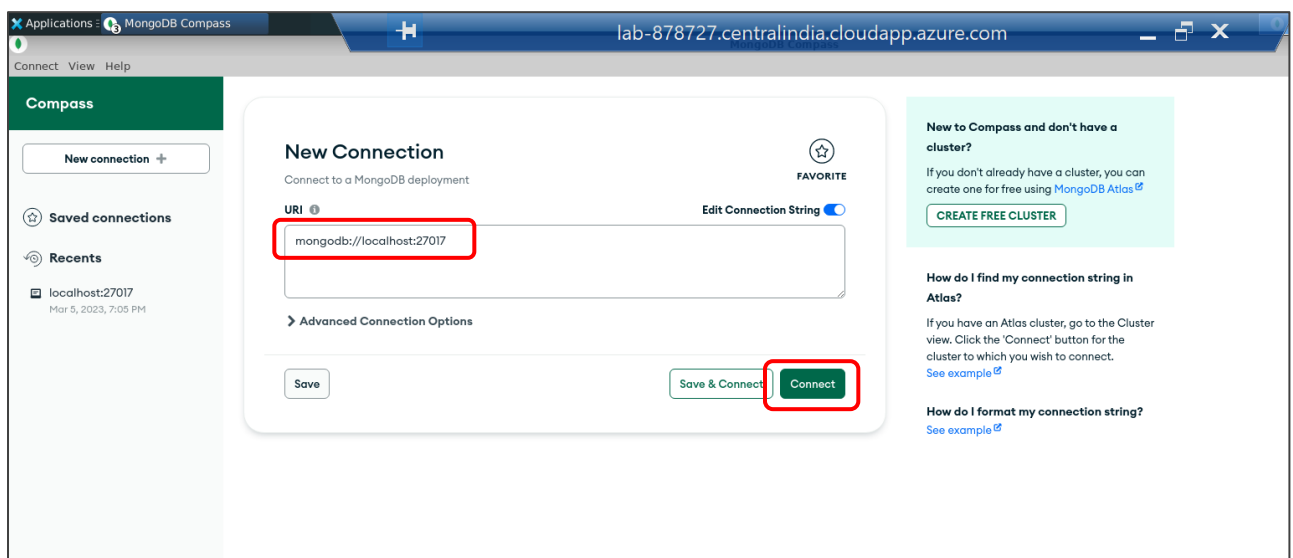
Prerequisites: Knowledge of JavaScript and SQL

Steps to be followed:

1. Connect to MongoDB Compass by using the virtual machine extension
2. Create a database in MongoDB Compass
3. Create collections in the database
4. Create relationships between documents

Step 1: Connect to MongoDB Compass by using the virtual machine extension

- 1.1 Enter **mongodb://localhost:27017** in the URL box and click on **Connect** to create a new connection in MongoDB Compass

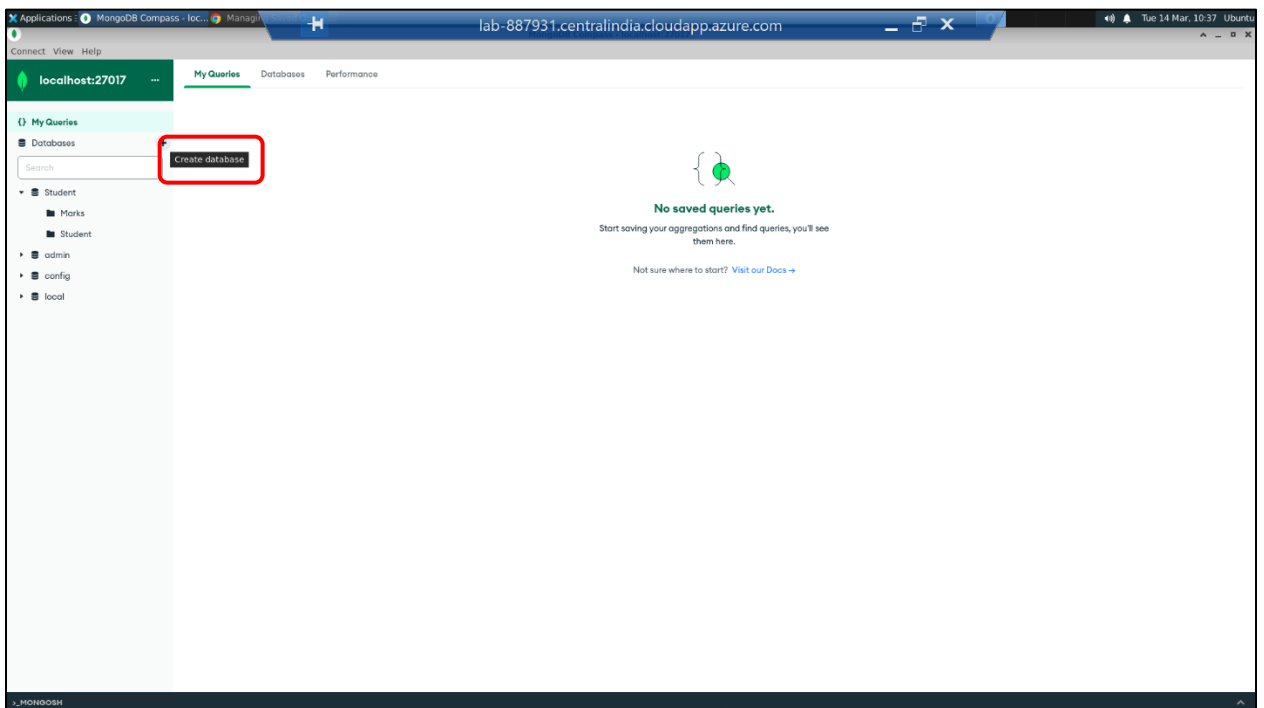




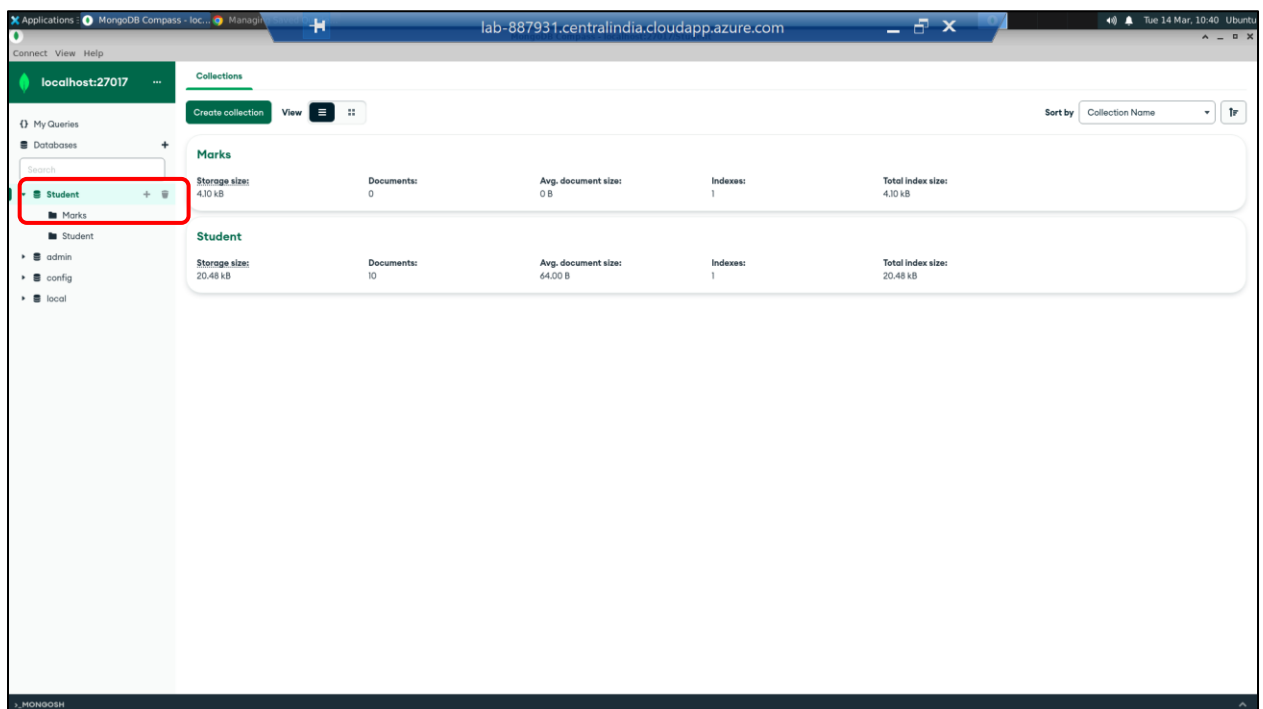
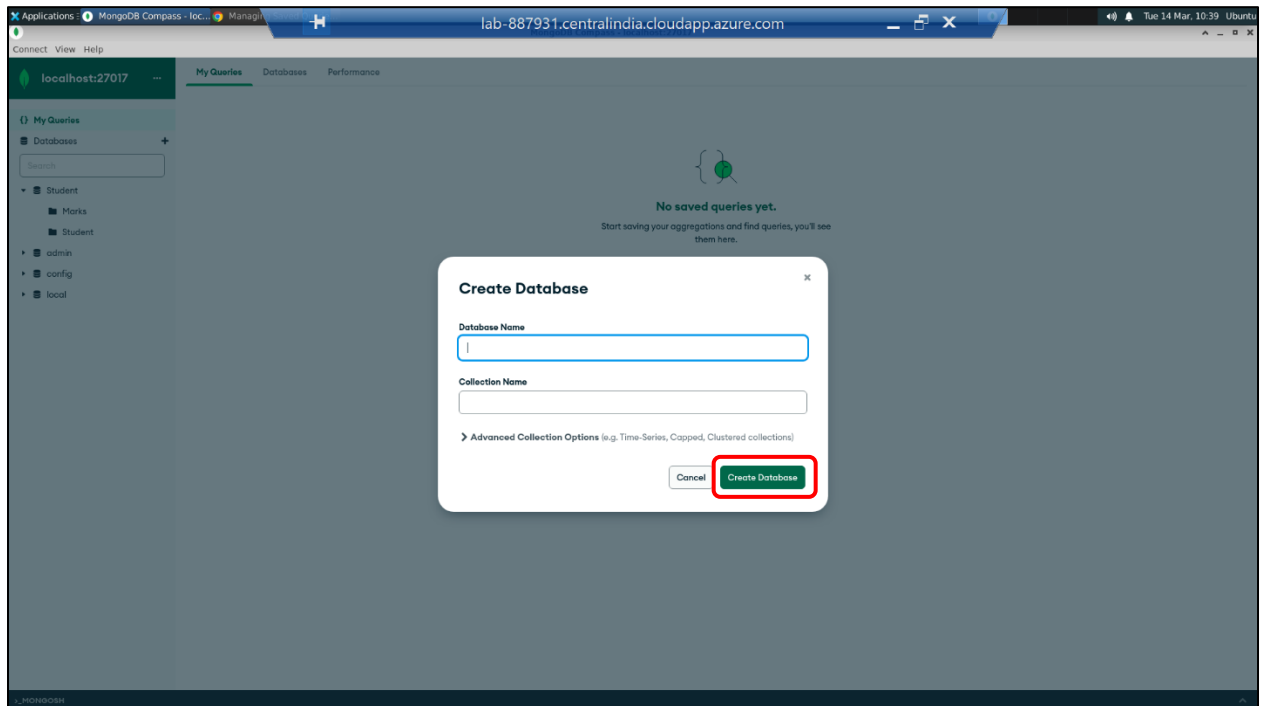
The connection to the local host has been created.

Step 2: Create a database in MongoDB Compass

2.1 Click on **Create Database** to create a database



2.2 Enter the **Database Name** and the **Collection Name**, then click on **Create Database**



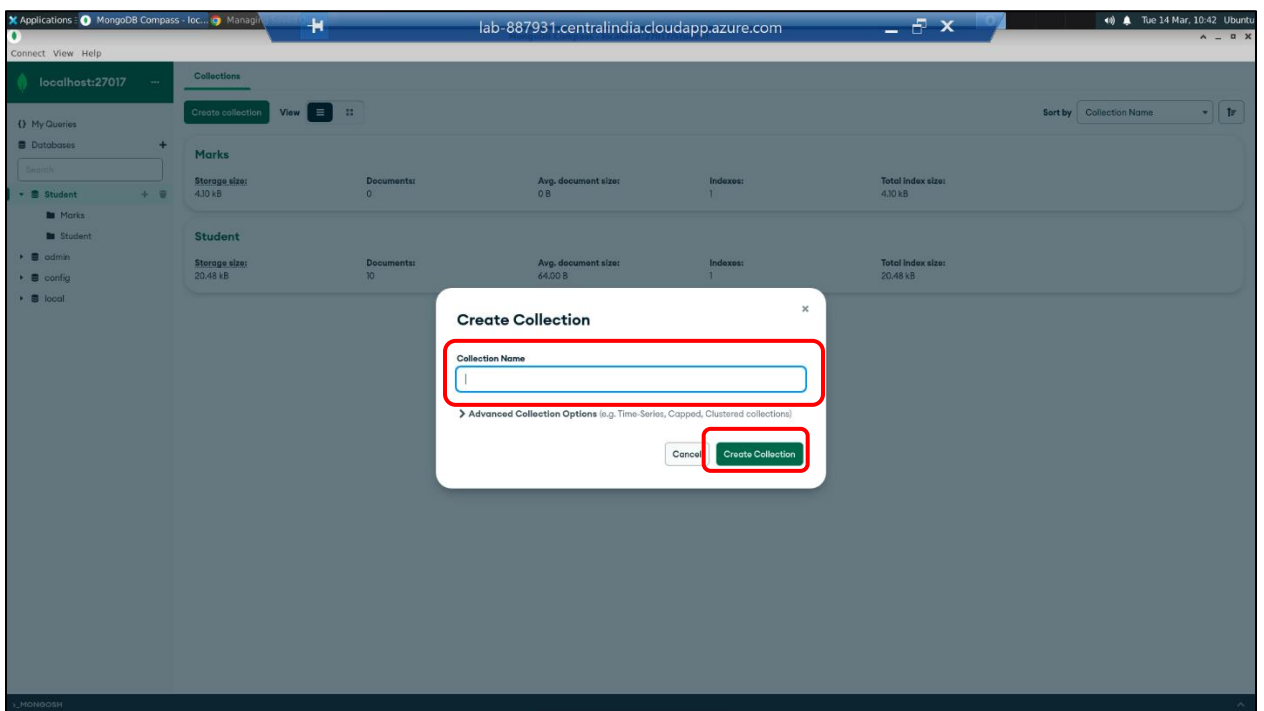
The database is created.

Step 3: Create collections in the database

3.1 Click the **Create collection** button to create a collection



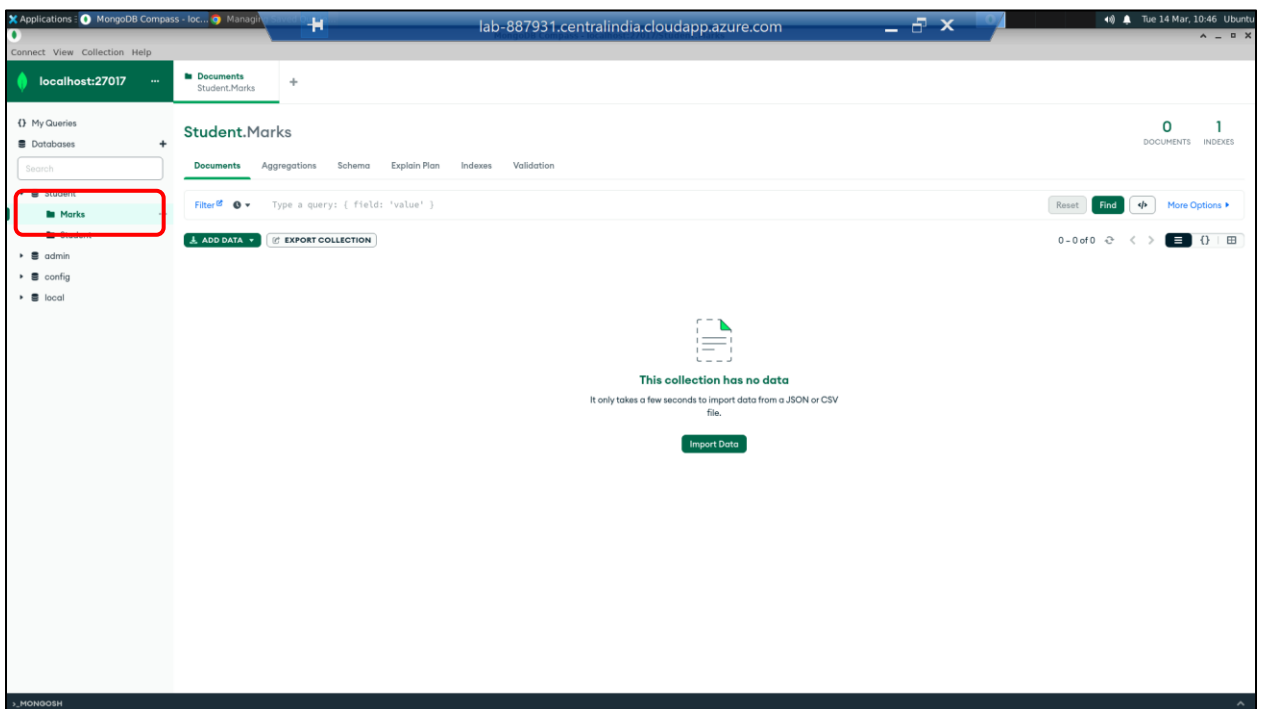
3.2 Enter the **Collection Name**, and click on **Create Collection**



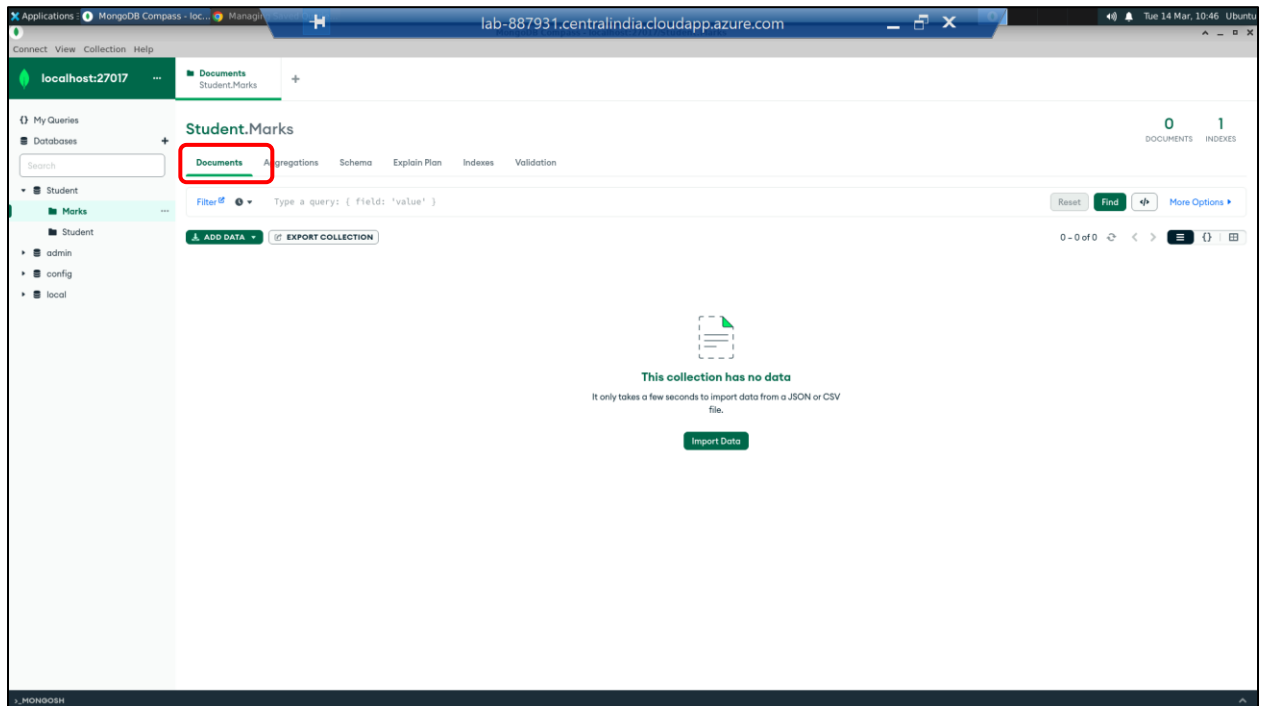


The collection is created.

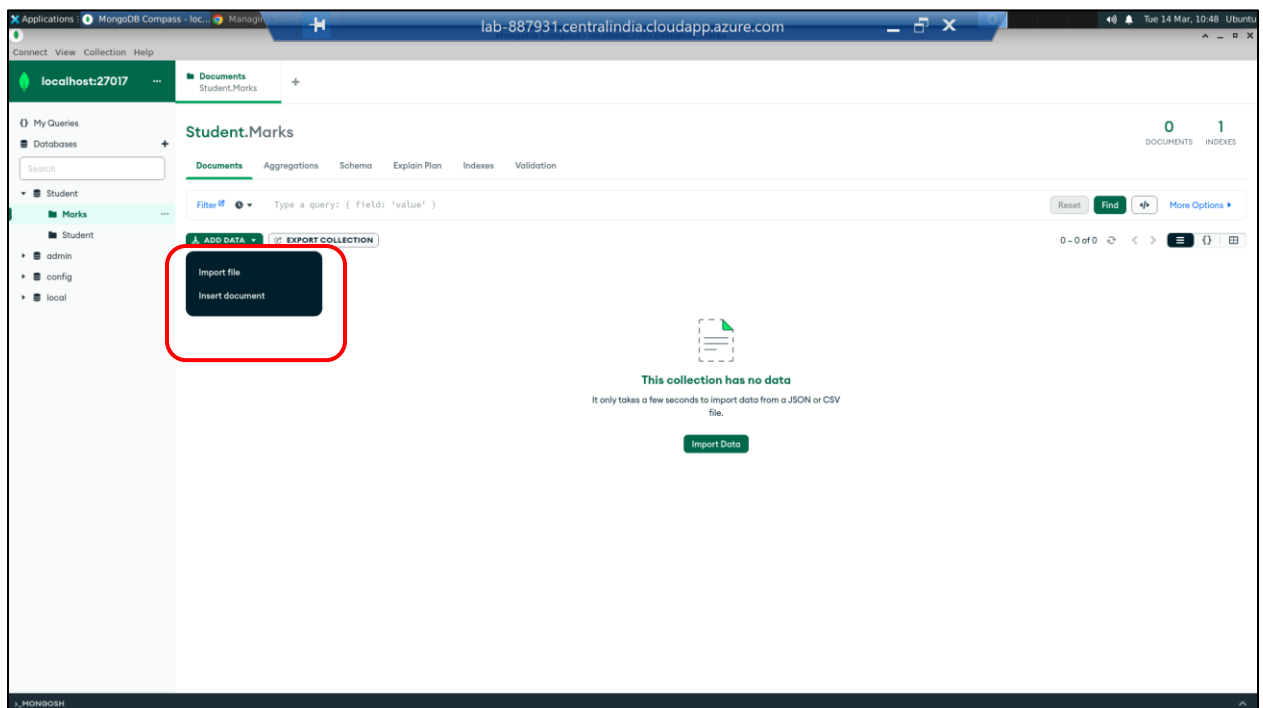
3.3 Select the collection in which the document needs to be created



3.4 Click on the **Documents** tab

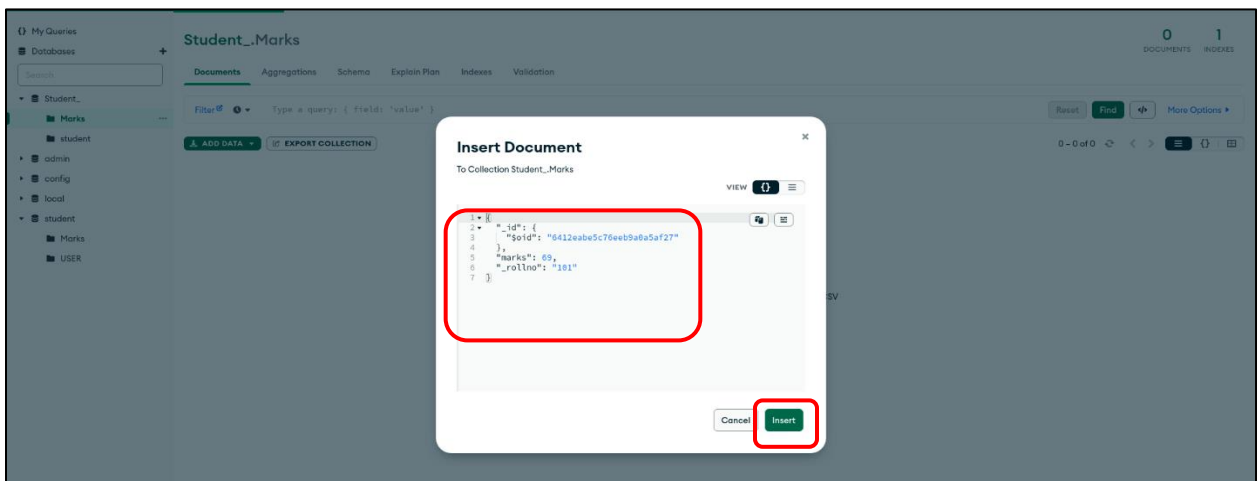


3.5 Click on **Add Data** and select **Insert Document** to add a document to the collection



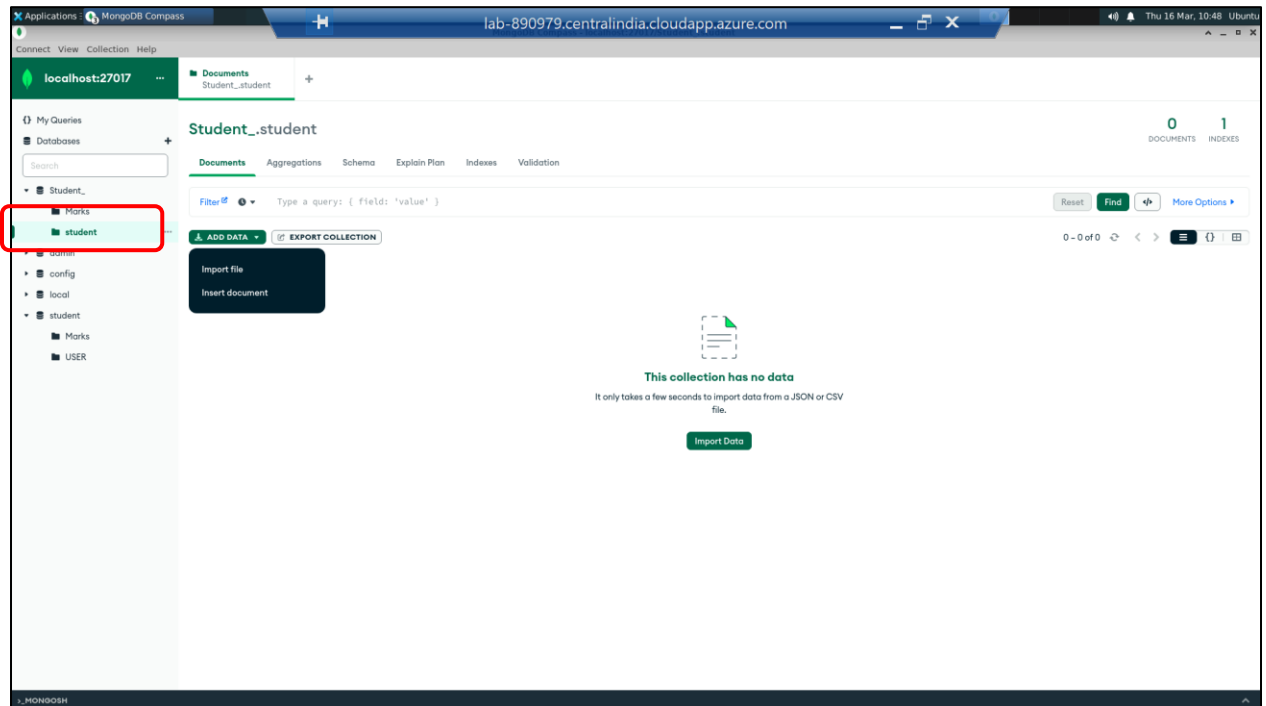
3.6 Enter the following sample data in the **Insert Document** pane, and click on **Insert** to add the document to the collection

```
{
  "_id": {
    "$oid": "6412eabe5c76eeb9a0a5af27"
  },
  "marks": 69,
  "_rollNo": "101"
}
```



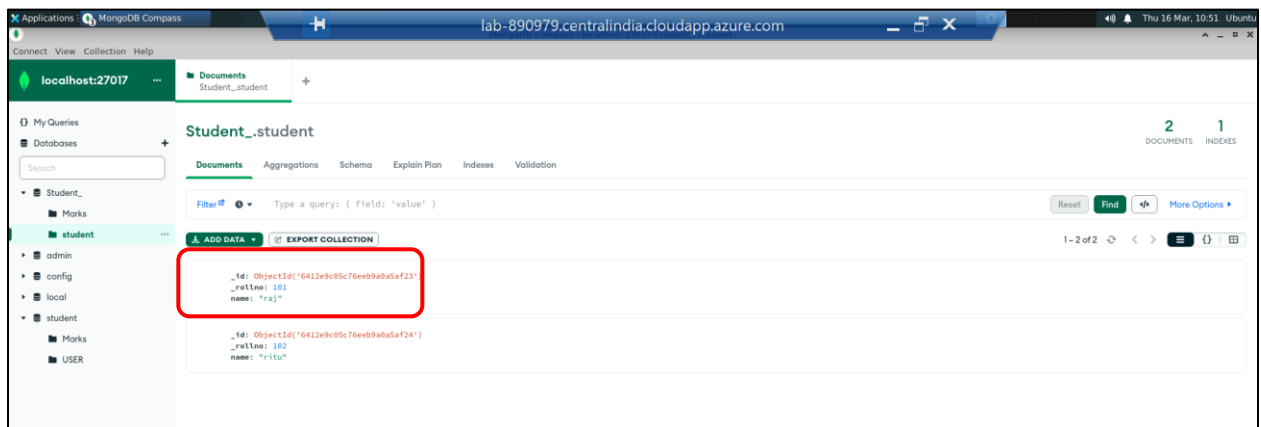
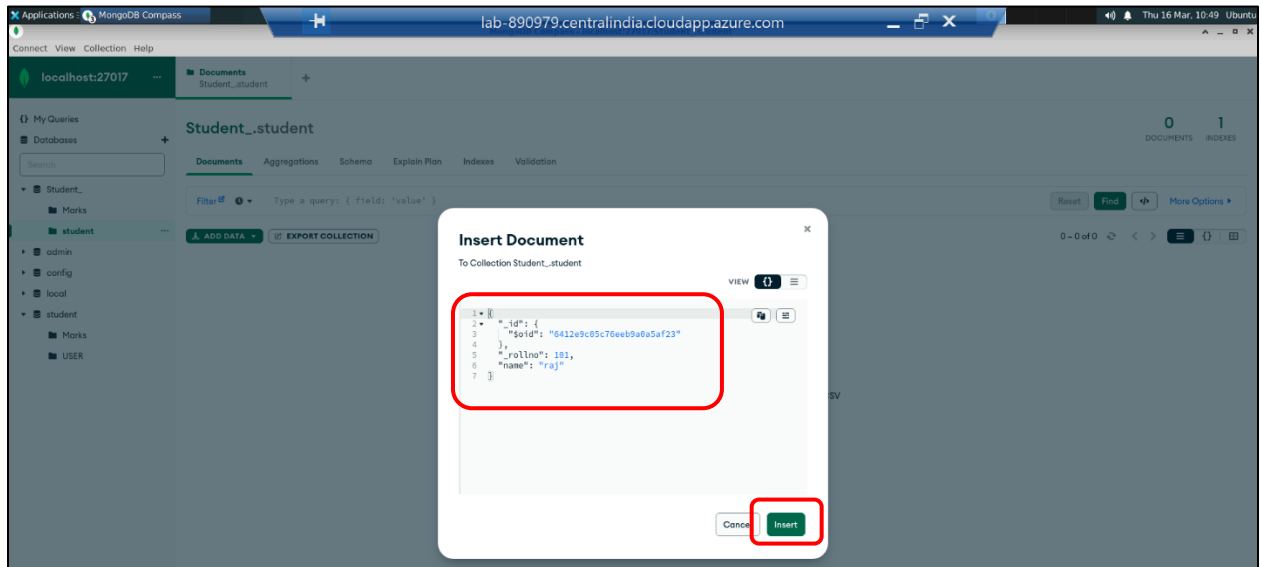
The document is inserted into the collection.

3.7 Add documents to another collection, follow the above steps again



3.8 Enter the following code and click on **Insert**

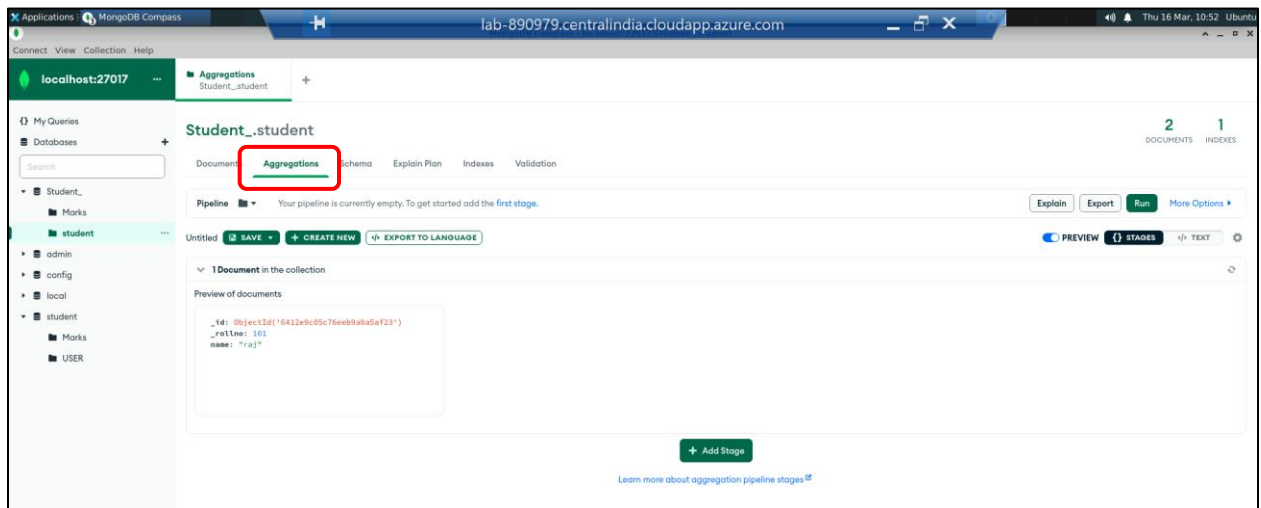
```
{
  "_id" : 8751,
  "title" : "The Banquet",
  "author" : "Dante",
  "copies" : 2
}
```



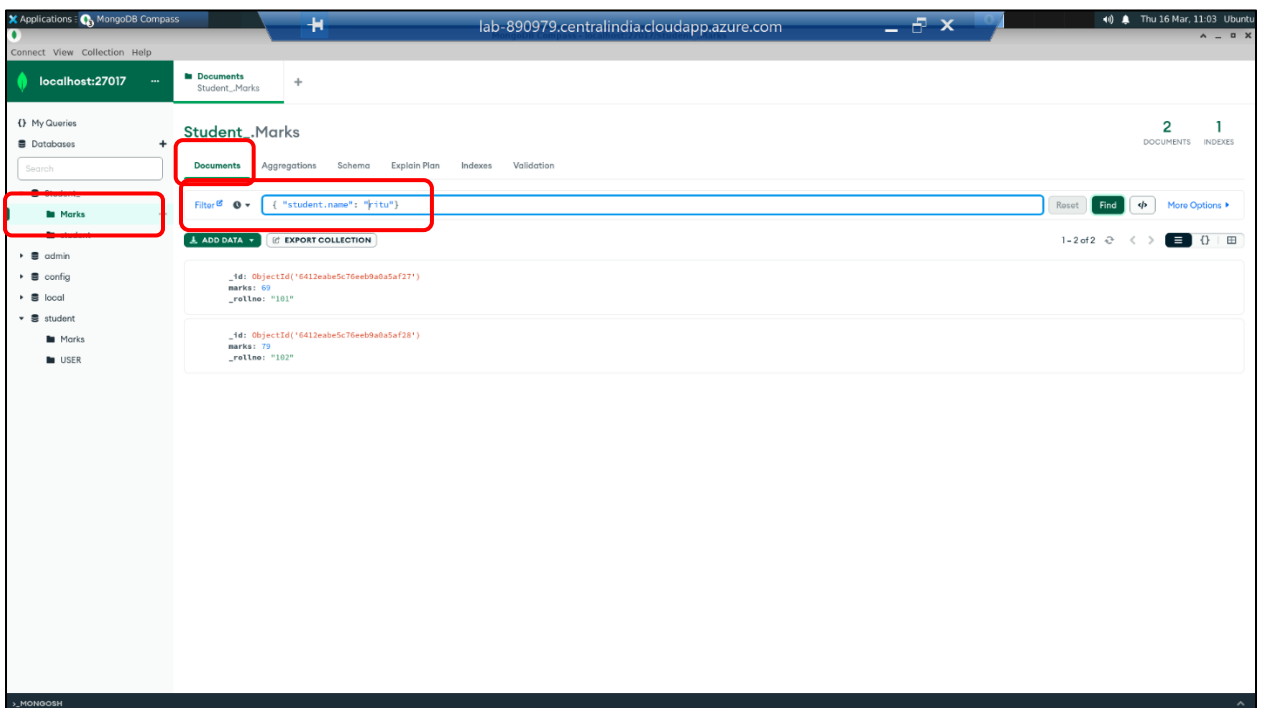
The document is inserted into the **student** collection.

Step 4: Create relationships between documents

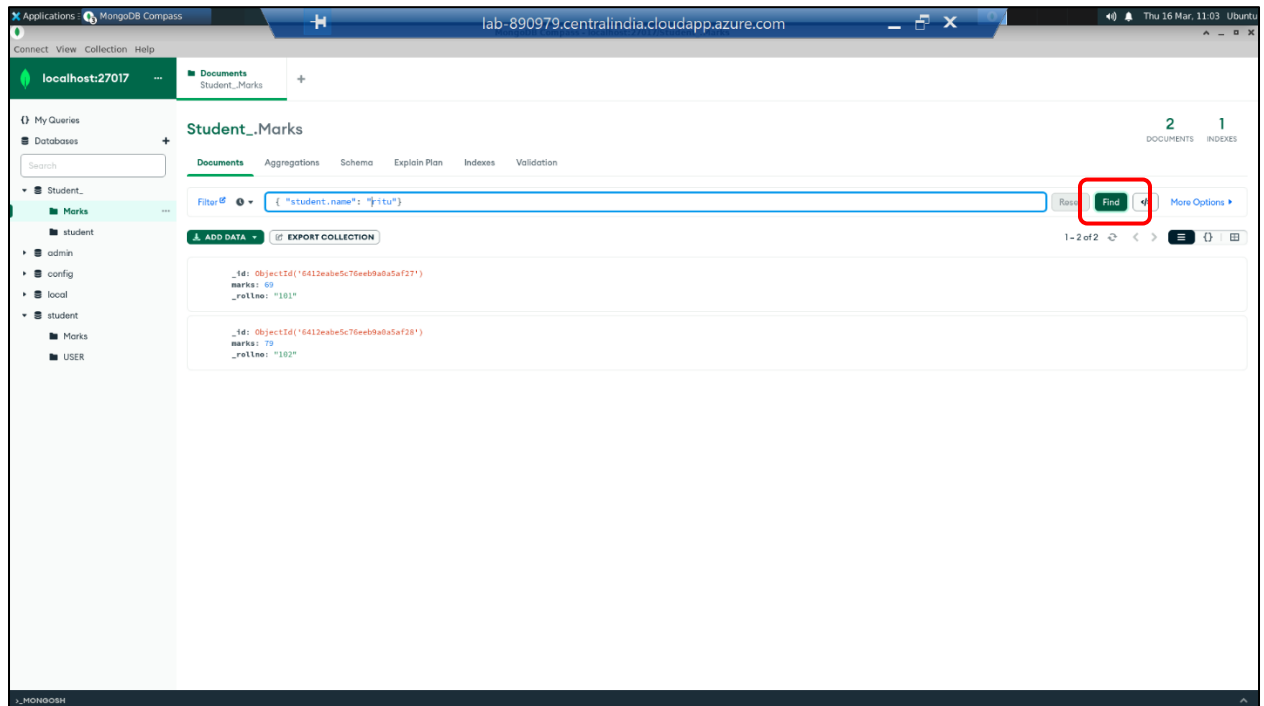
4.1 Click on the **Aggregations** tab in the **Student** collection to see a list of documents available



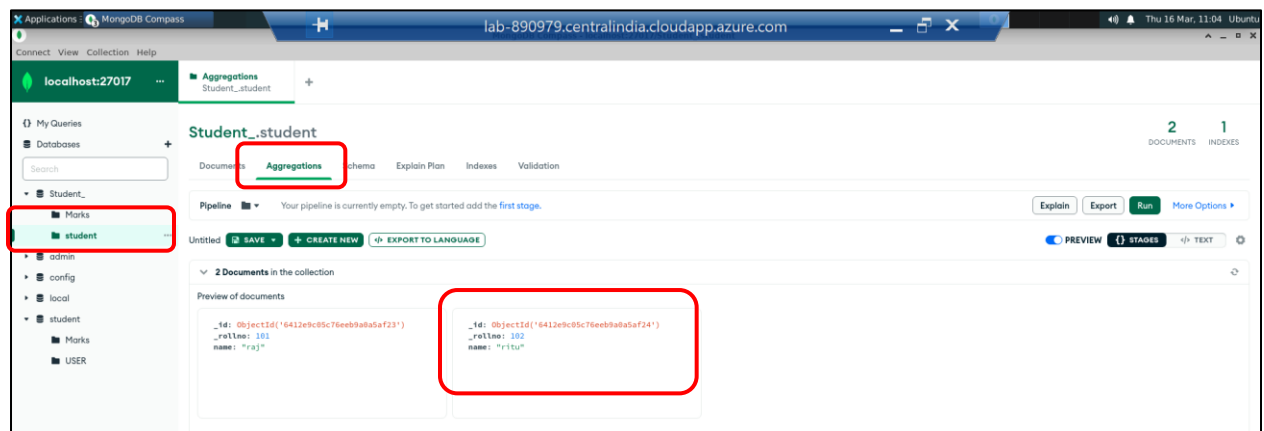
4.2 Navigate to the **Marks** collection. Under the **Documents** tab, select **Filter** and enter the query to sort the document



4.3 Next, click on **Find** to sort the document based on the specified query



4.4 Navigate to the **Student** collection, and click on the **Aggregation** tab



By following these steps, you have successfully created relationships between the documents in MongoDB for structuring and organizing data efficiently in the database.