Create and Insert in localhost

Prerequisite

In order to create a database, collection, or perform any operations in local host we will be using MongoDB Compass. Also, to perform any operation using MongoDB Compass on localhost, the **MongoDB server must be running on your local machine**.

MongoDB Compass is a graphical user interface (GUI) tool that allows you to interact with MongoDB databases, but it relies on the MongoDB server being active and accessible on your local system.

Install MongoDB Server on your system and make sure it is running as a Service. You can refer to the **02_Installing MongoDB.pdf** provided for the step by step instructions.

Install MongoDB Compass and launch the instance on your system. Refer to https://www.mongodb.com/try/download/compass for step by step instruction to download and install MongoDB Compass.

Creating database on localhost using MongoDB Compass

1. **Connect to Localhost:**

    a. When MongoDB Compass opens, you'll be prompted to connect.
    b. By default, it should connect to localhost. If not, click on "New Connection", and enter **localhost** as the hostname and **27017** as the port (assuming MongoDB is running on the default port).
    c. You can also specify the connection string of your MongoDB cloud cluster. Steps for these are mentioned in **04_Create and Insert in MongoDB Cloud.pdf** document.

2. **Create a Database:**

    a. Once connected, click on the "+" button("CREATE DATABASE" button) besides Databases option on the left hand side of the GUI.
    b. Enter the name of your database and click "Create Database". Let's say we name our database "mydatabase".
    c. You will also have to give 1 collection name to be created within the database. You can give collection name as "firstcollection".
    d. Then click on the "Create Database" button. This will successfully create the database "mydatabase" having 1 collection named as "firstcollection".

3. **Create a Collection:**

    a. Inside your newly created database, you can create as many collections as you want.
    b. To create a collection select the database name ("mydatabase" in our case) and click on the "+" button ("CREATE COLLECTION" button) besides it.
    c. Enter the name of your collection. Let's name our collection "secondcollection".

4. **Insert Data:**
    a. Select the collection within which you want to insert the data.
    b. With your collection selected, click on the "+ ADD DATA" dropdown button.
    c. You can either insert a single document at a time or multiple documents present in JSON format.
        i. Select "Insert document" option to insert single document. This will open a new document editor where you can input your data. You need to input data manually in JSON format. Here's an example of how you can insert a document manually:
        ```
        {
          "name": "John Doe",
          "age": 30,
          "email": "john.doe@example.com"
        }
        ```
        ii. Select "Import JSON or CSV file" option to insert multiple documents at a time. You can use any of the JSON files provided in the **data** folder within the **06_Script to populate database.zip** folder.

Connecting to the localhost database using mongosh shell

1) **Connect to Your Localhost MongoDB in mongosh shell**:

    a) Open your terminal or command prompt and run the following command:

    mongosh "mongodb://localhost:27017/**DbName**"

    Replace the DBName with actual database name. For example:

    mongosh "mongodb://localhost:27017/**EcommerceAppDb**"

2) **Explore Your Data**: Once connected, you can start executing MongoDB commands directly in the **mongosh** shell. You can interact with databases, collections, and documents in your MongoDB Atlas cluster just as you would with a local MongoDB instance.