

Creating a Database Using MongoDB and Mongosh

Database Setup and Collection Creation

The image displays the MongoDB Compass interface and a terminal window running the Mongosh shell.

MongoDB Compass Interface:

- Top bar: localhost:27017/myDatabase.users
- Left sidebar: Databases list (admin, config, local, myDatabase, users, school, test). The 'users' collection under 'myDatabase' is selected.
- Main panel: myDatabase.users. Shows 0 documents and 1 index. The 'Documents' tab is active.
- Filter bar: Type a query: { field: 'value' } or [Generate query](#).
- Buttons: ADD DATA, EXPORT DATA, UPDATE, DELETE.
- Document preview:

```
{
  "_id": ObjectId('65f9650b26601e50d5bcf817'),
  "name": "kishore",
  "email": "sathambakamkishore2002@gmail.com",
  "age": 44
}
```

Mongosh Terminal:

```
> MONGOSH
> use myDatabase
switched to db myDatabase
> db.createCollection('users')
{ ok: 1 }
> db.users.insertOne({'name': 'kishore', 'email': 'sathambakamkishore2002@gmail.com', 'age': 44})
{
  acknowledged: true,
  insertedId: ObjectId('65f9650b26601e50d5bcf817')
}
myDatabase>
```

The terminal output confirms the successful creation of the 'users' collection and the insertion of a document with the following fields: `_id` (ObjectId), `name` (kishore), `email` (sathambakamkishore2002@gmail.com), and `age` (44).

Document Insertion

MongoDB Compass - localhost:27017/myDatabase.users

localhost:27017

myDatabase.users

Documents Aggregations Schema Indexes Validation

Filter Type a query: { field: 'value' } or Generate query

ADD DATA EXPORT DATA UPDATE DELETE

1 - 3 of 3

```
{ "_id": ObjectId("65f965e826601e50d5bcf818"),  
  "name": "prudhvi",  
  "email": "prudhviraj143@gmail.com",  
  "age": 38  
}
```

```
{ "_id": ObjectId("65f9665e26601e50d5bcf819"),  
  "name": "sai",  
  "email": "nagasaikumar123@gmail.com",  
  "age": 40  
}
```

```
> _MONGOOSH  
> db.users.insertOne({'name':'prudhvi','email':'prudhviraj143@gmail.com','age':38})  
< {  
  acknowledged: true,  
  insertedId: ObjectId('65f965e826601e50d5bcf818')  
}  
> db.users.insertOne({'name':'sai','email':'nagasaikumar123@gmail.com','age':40})  
< {  
  acknowledged: true,  
  insertedId: ObjectId('65f9665e26601e50d5bcf819')  
}
```

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Update Operation

MongoDB Compass - localhost:27017/myDatabase.users

localhost:27017

myDatabase.users

Documents Aggregations Schema Indexes Validation

Filter Type a query: { field: 'value' } or Generate query

ADD DATA EXPORT DATA UPDATE DELETE

1 - 3 of 3

```
{ "_id": ObjectId("65f9650b26601e50d5bcf817"),  
  "name": "kishore",  
  "email": "sathambakamkishore2002@gmail.com",  
  "age": 44  
}
```

```
{ "_id": ObjectId("65f965e826601e50d5bcf818"),  
  "name": "prudhvi",  
  "email": "prudhviraj143@gmail.com",  
  "age": 34  
}
```

```
{ "_id": ObjectId("65f9665e26601e50d5bcf819"),  
  "name": "sai",  
  "email": "nagasaikumar123@gmail.com",  
  "age": 40  
}
```

```
> _MONGOOSH  
> db.users.updateOne({'email':'prudhviraj143@gmail.com'},{$set:{'age':34}})  
< {  
  acknowledged: true,  
  insertedId: null,  
  matchedCount: 1,  
  modifiedCount: 1,  
  upsertedCount: 0  
}  
> db.users.find()  
< {  
  "_id": ObjectId("65f9650b26601e50d5bcf817"),  
    "name": "kishore",  
    "email": "sathambakamkishore2002@gmail.com",  
    "age": 44  
  },  
  {  
    "_id": ObjectId("65f965e826601e50d5bcf818"),  
    "name": "prudhvi",  
    "email": "prudhviraj143@gmail.com",  
    "age": 34  
  },  
  {  
    "_id": ObjectId("65f9665e26601e50d5bcf819"),  
    "name": "sai",  
    "email": "nagasaikumar123@gmail.com",  
    "age": 40  
  }  
}
```

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Deletion Operation

MongoDB Compass - localhost:27017/myDatabase.users

Connect Edit View Collection Help

localhost:27017

My Queries myDatabase users

myDatabase.users

0 DOCUMENTS 1 INDEXES

Documents Aggregations Schema Indexes Validation

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

EXPLAIN Reset FIND Options

ADD DATA EXPORT DATA UPDATE DELETE

1 - 3 of 3

```
>_MONGOSH
> db.users.deleteOne({'email':'nagasaikumar123@gmail.com'})
< {
  acknowledged: true,
  deletedCount: 1
}
> db.users.find()
< {
  _id: ObjectId('65f9650b26601e50d5bcf817'),
  name: 'kishore',
  email: 'sathambakamkishore2002@gmail.com',
  age: 44
}
{
  _id: ObjectId('65f965e826601e50d5bcf818'),
  name: 'prudhvi',
  email: 'prudhviraj143@gmail.com',
  age: 34
}
}
myDatabase>
```

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Index Creation

MongoDB Compass - localhost:27017/myDatabase.users

Connect Edit View Collection Help

localhost:27017

My Queries myDatabase users

myDatabase.users

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Documents Aggregations Schema Indexes Validation

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

EXPLAIN Reset FIND Options

ADD DATA EXPORT DATA UPDATE DELETE

1 - 2 of 2

```
>_MONGOSH
> use myDatabase
switched to db myDatabase
> db.users.ensureIndex({'email':1})
< { 'email_1' : 1 }
> db.users.find()
< {
  _id: ObjectId('65f9650b26601e50d5bcf817'),
  name: 'kishore',
  email: 'sathambakamkishore2002@gmail.com',
  age: 44
}
{
  _id: ObjectId('65f965e826601e50d5bcf818'),
  name: 'prudhvi',
  email: 'prudhviraj143@gmail.com',
  age: 34
}
}
myDatabase>
```

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