University of Roehampton London

CMP020L012S	Data Analytics	2022/23

Lab Task (NoSQL)

Week-1

MongoDB stores data or, records as documents, which are gathered inside a collection. The collection is stored inside a database. A database can store any number of collections of documents in it.

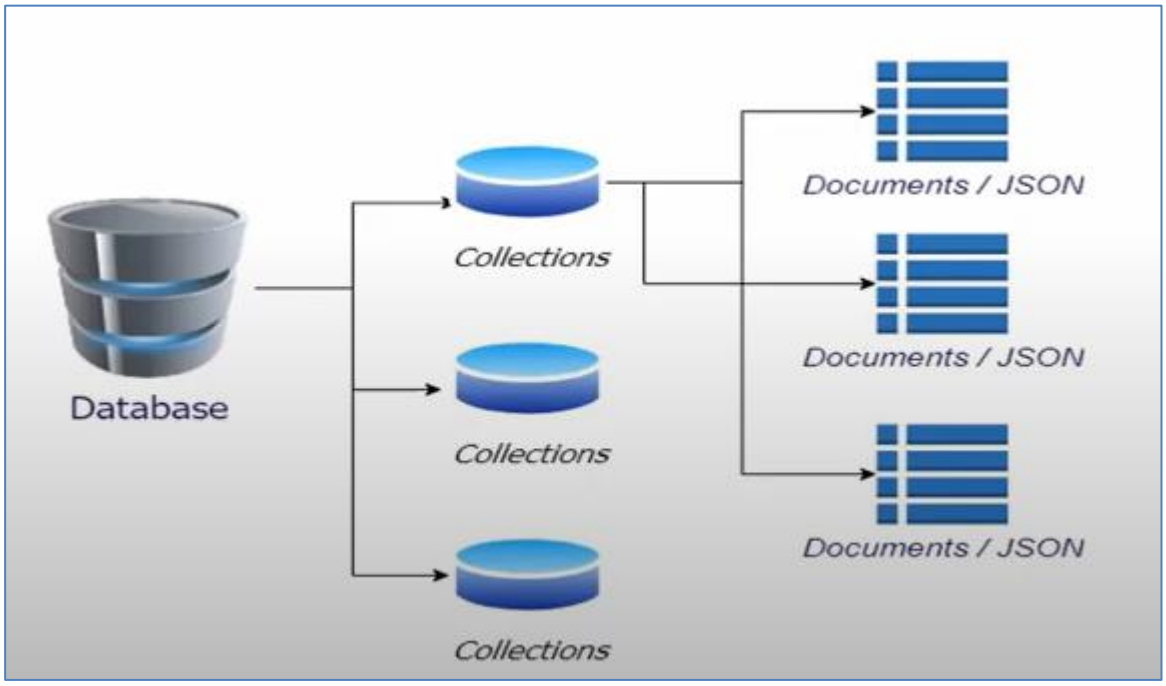
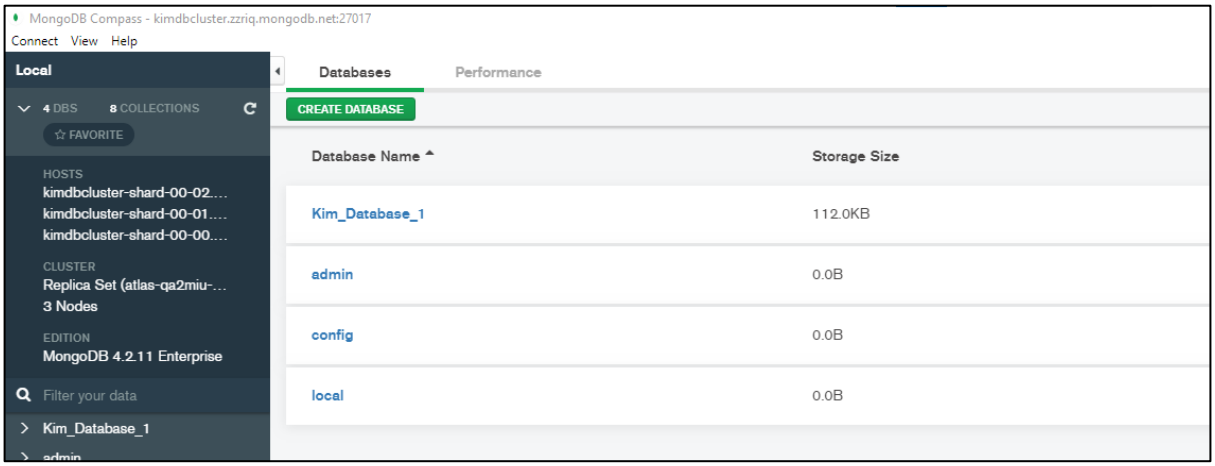


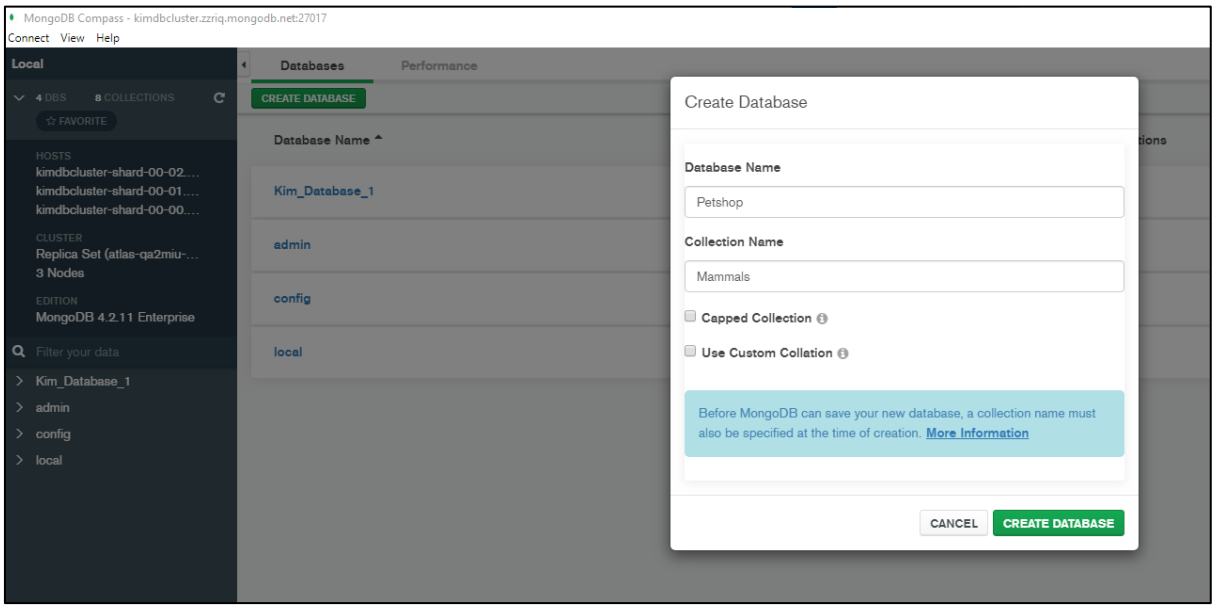
Figure: Structure of Data storage in MongoDB

Create a database “Petshop”. Create a collection “Mammals” inside the database.

Step:1

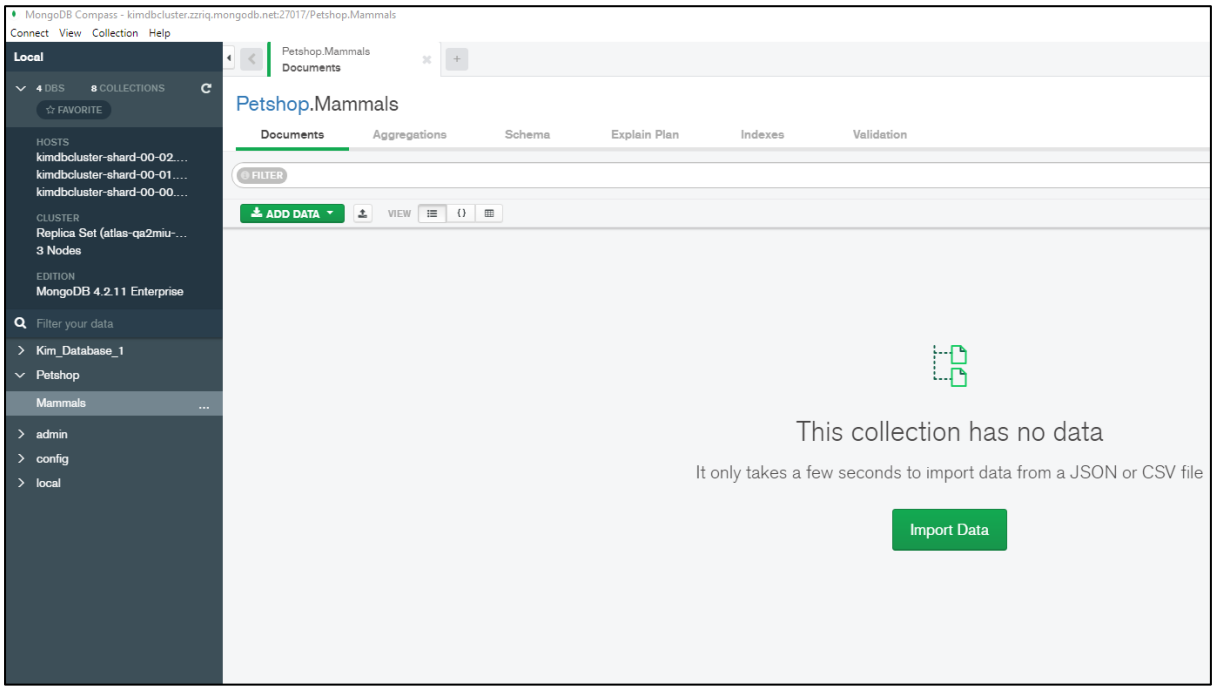


Step:2

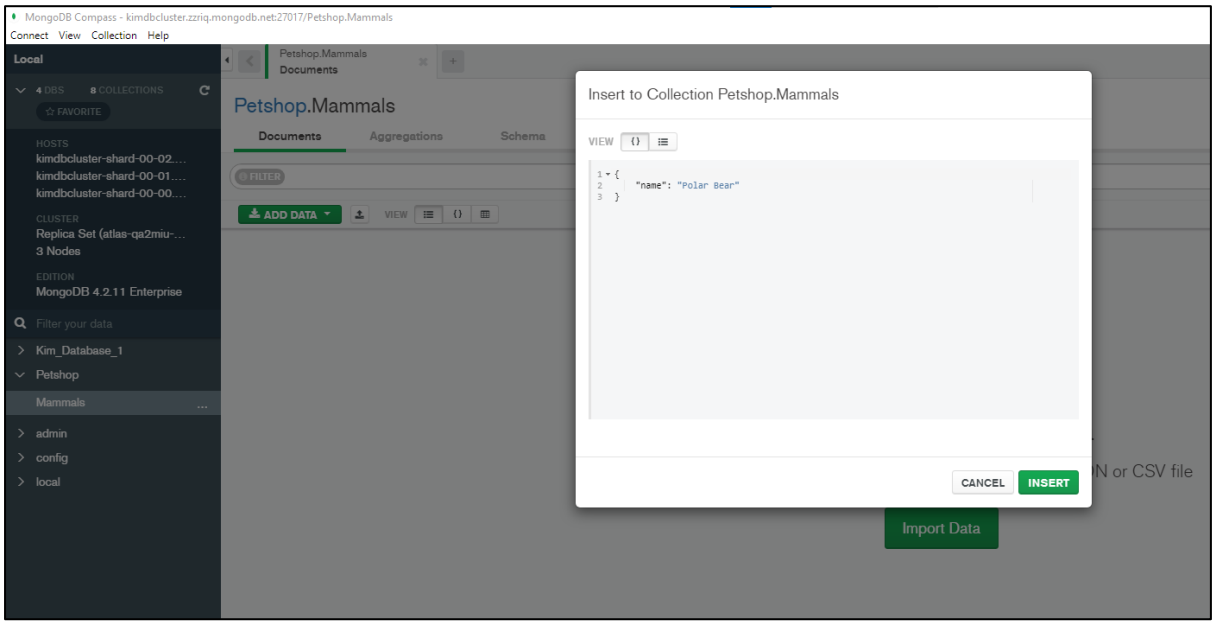


Create documents in the collection “Mammals”:

Step:1 Go to “add data”.

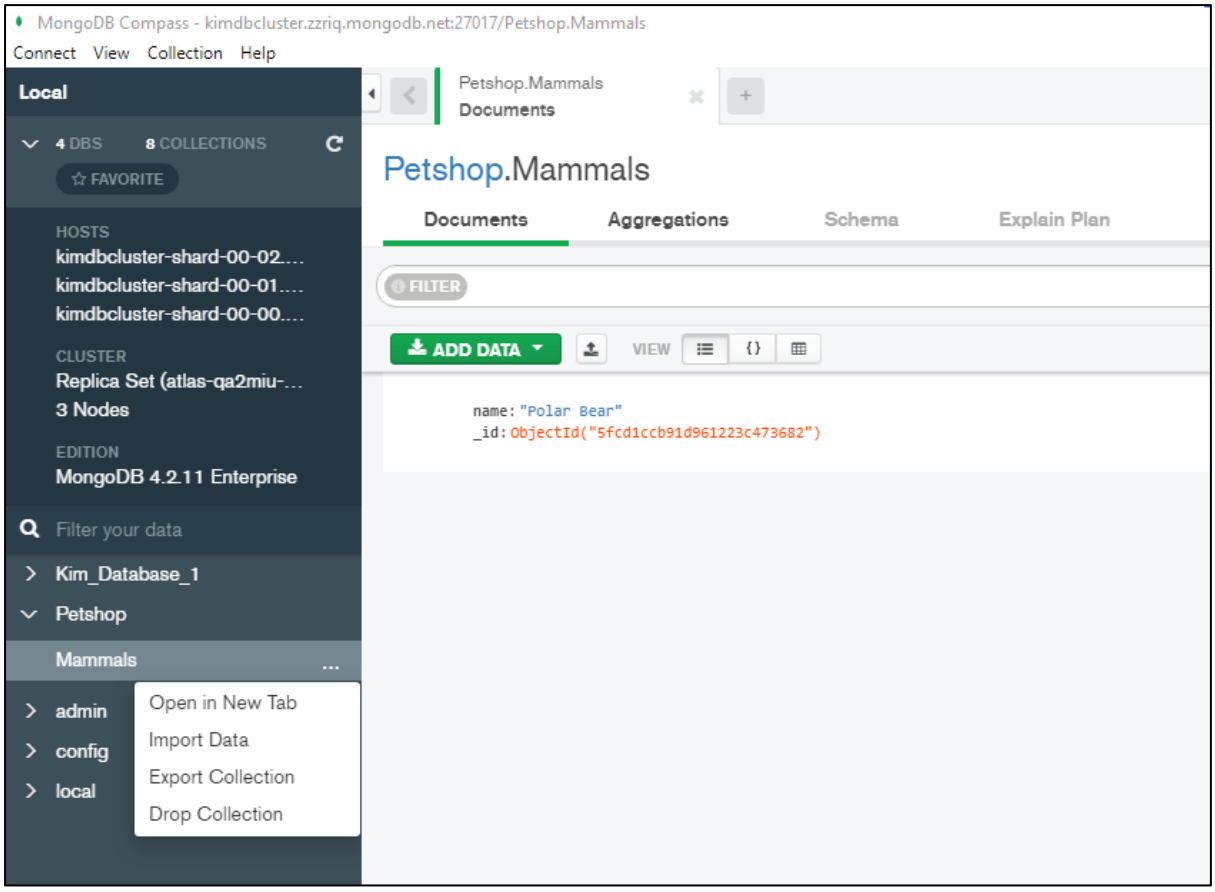


Step:2 create each document at a time as shown below:

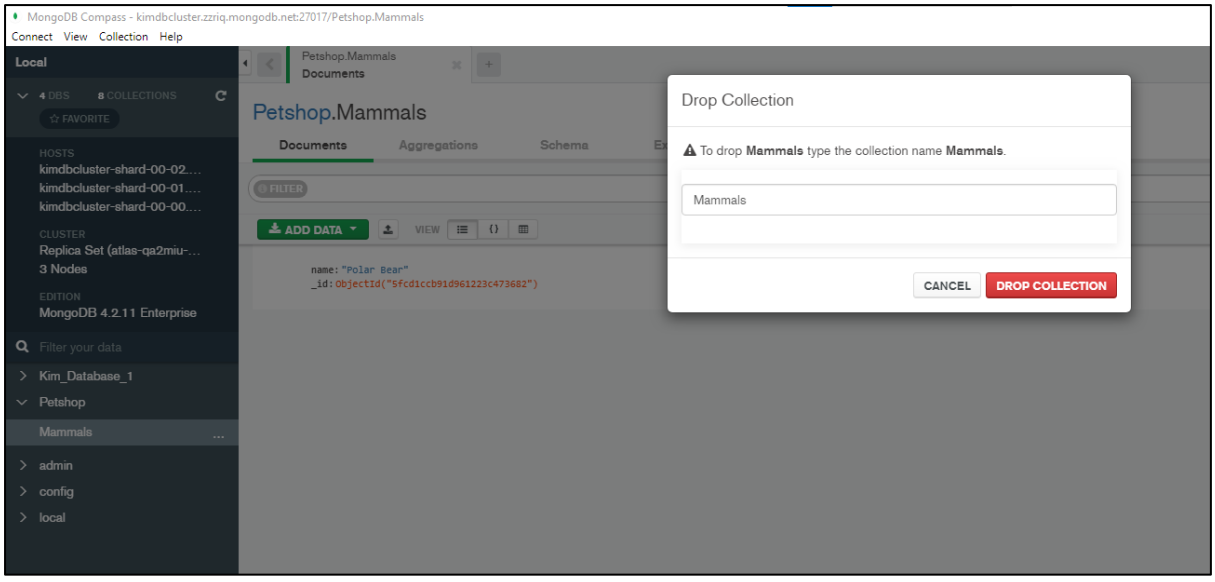


Now, drop the collection mammals. Observe the changes that occurred.

Step:1 Choose “Drop Collection” option.



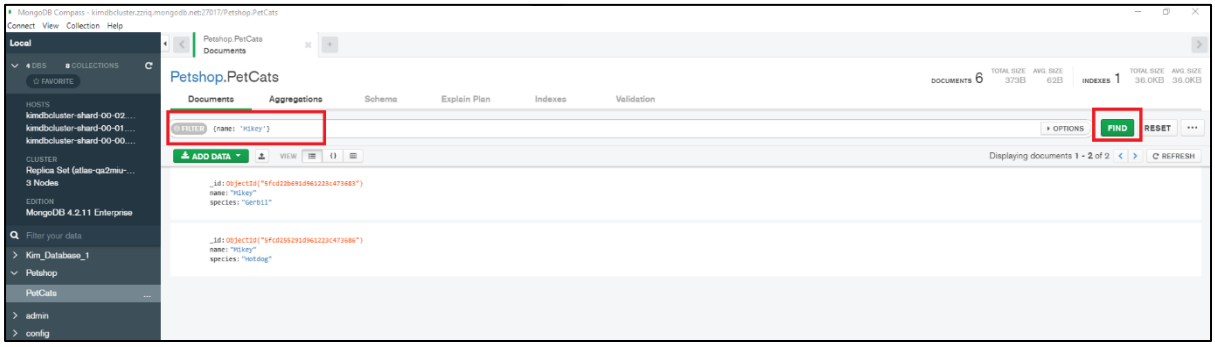
Step:2 Specify the name of the collection that you want to drop.



Create a Database “Petshop” again the collection in it should be named as “Pets”. Now, add the following documents in the collection “PetCat”.

```
{"name": "Mikey", "species" : "Gerbil"}
{"name": "Davey Bungooligan", "species": "Piranha"}
{"name": "Suzy B", "species": "Cat"}
{"name": "Mikey", "species": "Hotdog"}
{"name": "Terrence", "species": "Sausagedog"}
{"name": "Philomena Jones", "species": "Cat"}
```

Now, find pet whose name is Mikey.



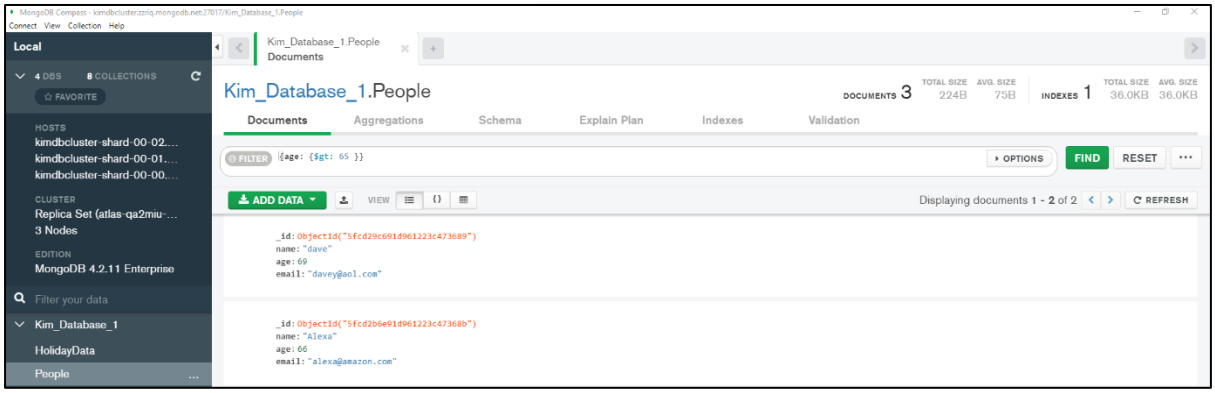
Similarly find the “cat” species.

Inside the first database that you created now create a collection “people” in it and then you will store the following documents inside “People” collection:

```
{"name": "dave","age": 69, "email": "davey@aol.com"}
{"name": "Essabella","age": 42, "email": "ib123@ymail.com"}
{"name": "Lychina","age": 24, "email": "Lily@hotmail.com"}
{"name": "Chou","age": 69, "email": "chouchou@abc.com"}
{"name": "Bob","age": 39, "email": "b.philips@gmail.com"}
{"name": "Alexa","age": 66, "email": "alexa@amazon.com"}
```

You will now try some comparison queries.

Find the people whose age is greater than 65.

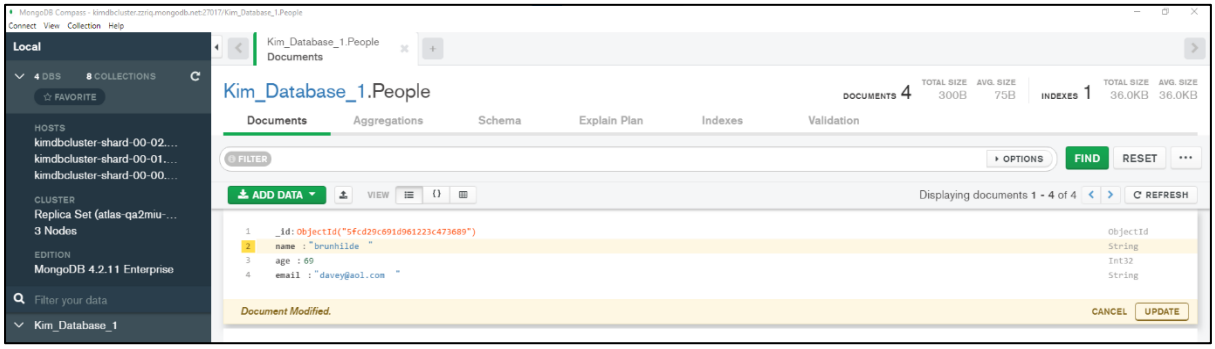


Similarly, some operators like this can be used:

- $gt - Greater than
- $gte - Greater than or equal to
- $lt - Less than
- $lte - Less than or equal to
- $in – matches any of the values inside the array

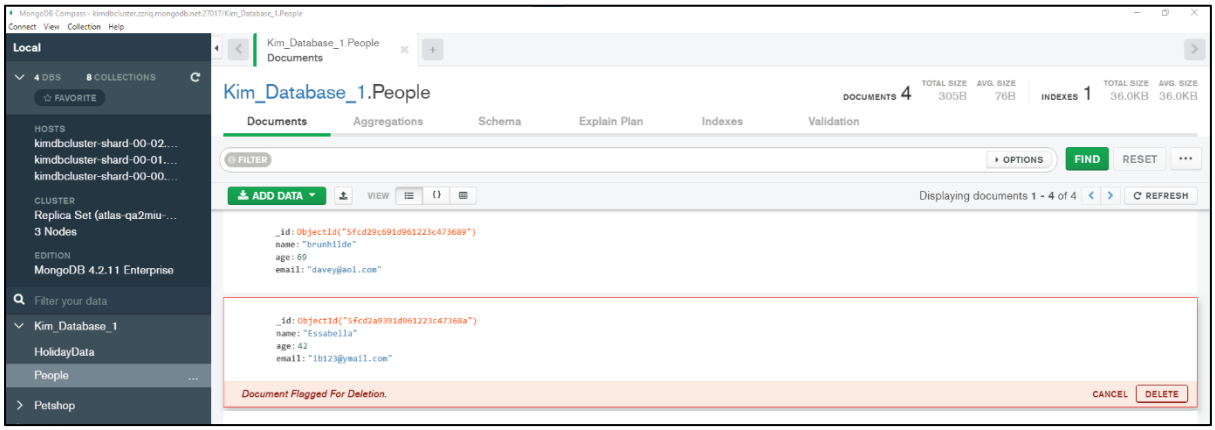
Now, find the people whose age is less than or equals to 42.

We can update the information inside the document manually.



Now, update chou's email address as "chou.official@abc.com".

We can also delete any document stored inside the database.



Now, delete all the documents present inside "people".