University of Roehampton London

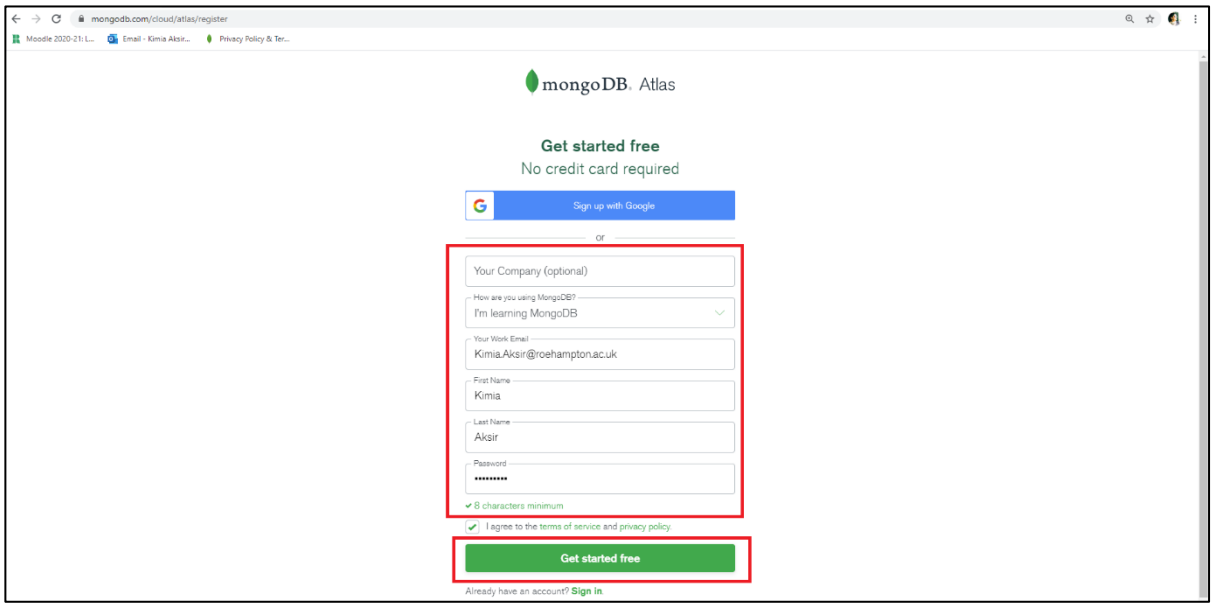
CMP020L012S	Data Analytics	2022/23

Lab Manual (MongoDB Setup Guideline)
Week-1

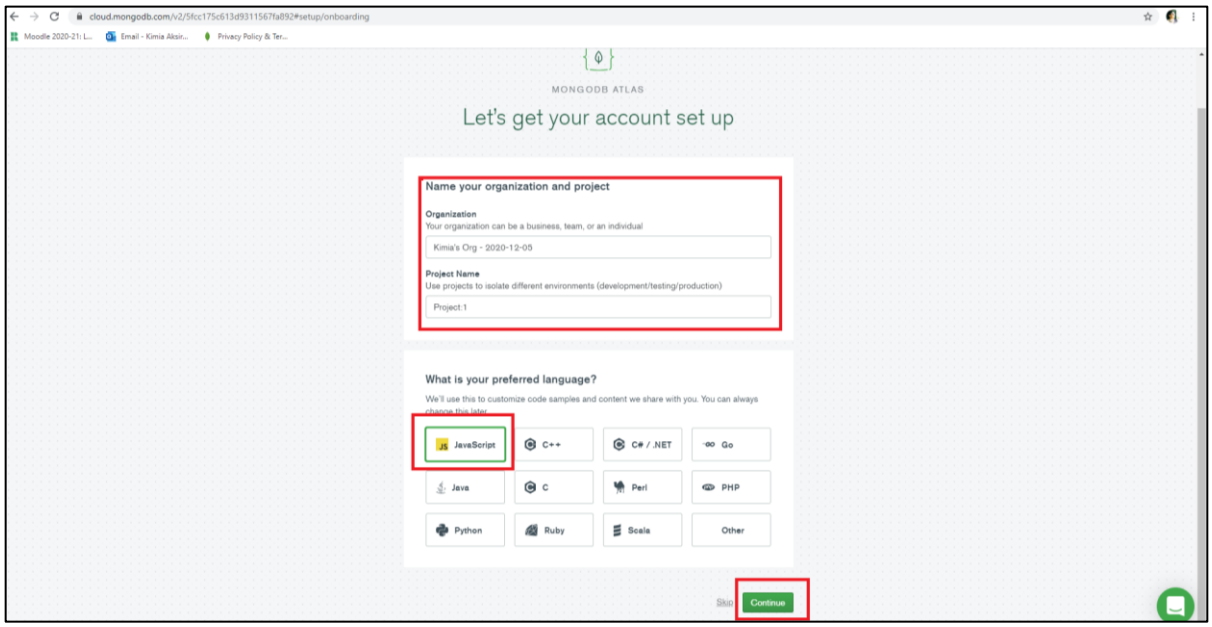
You can get up and running MongoDB in the cloud for free, using the Atlas product. To register to use MongoDB using Atlas, go to:

https://www.mongodb.com/cloud/atlas/register

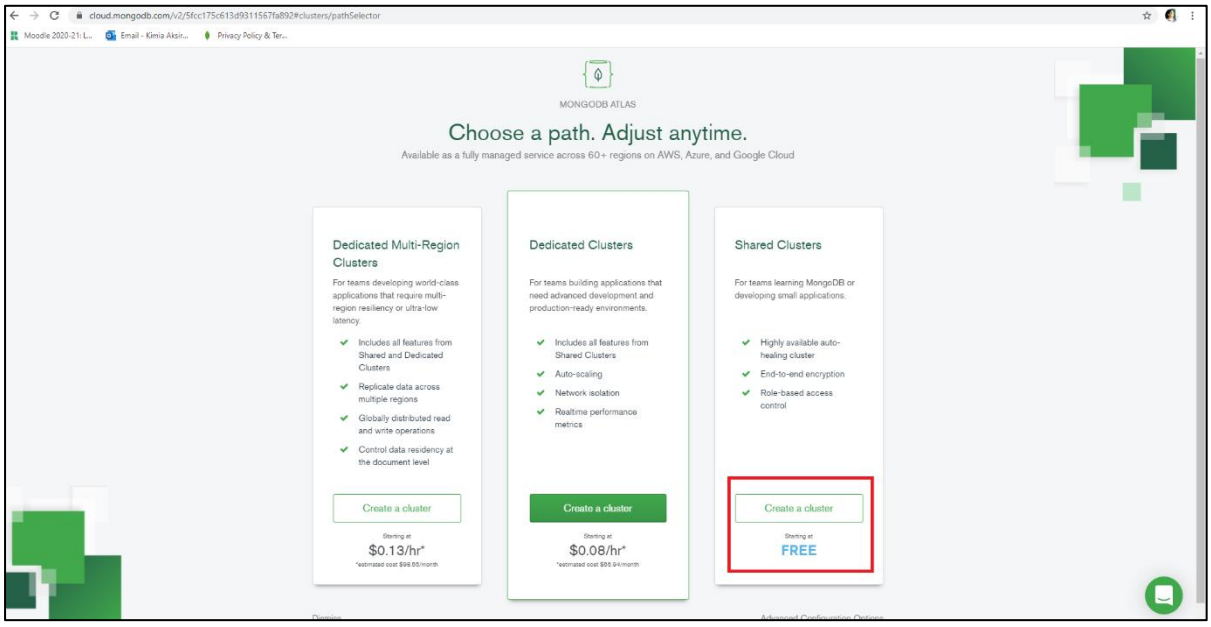
By following the instructions below, you will find how to signup for MongoDB online as well as MongoDB compass installed in your PC. We are using MongoDB compass which is a recently added UI component to the whole MongoDB experience. You will see how the data (in documents) are displayed with a rich structure within the collection through its graphical user interface.



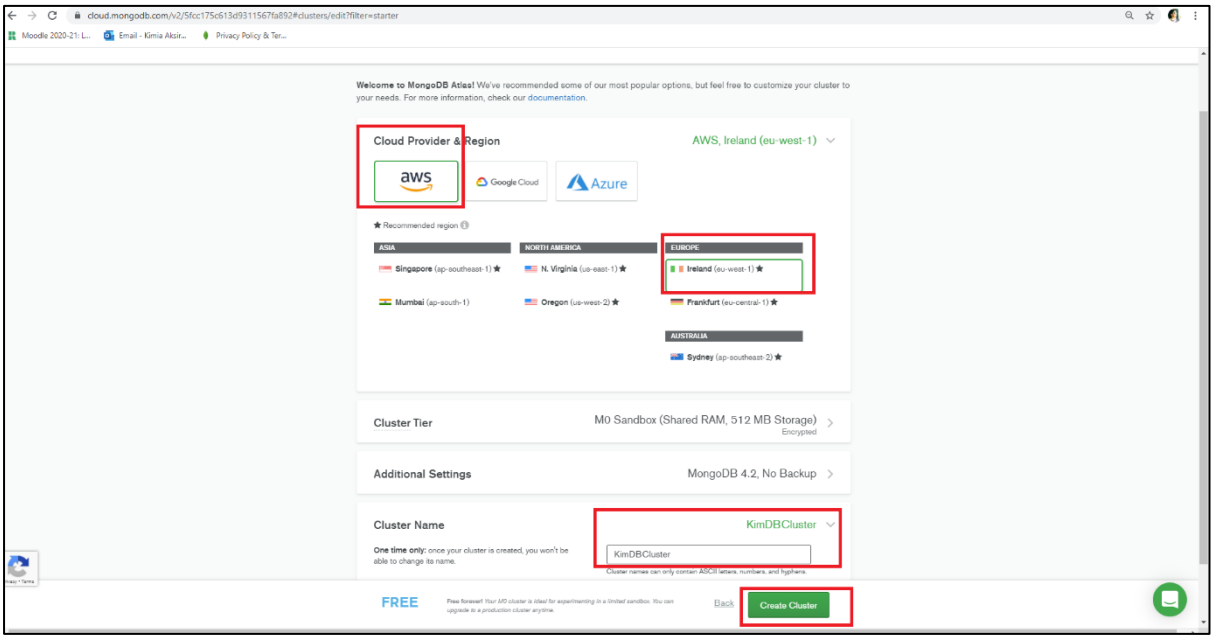
You have to fill-up all the compulsory fields accordingly. Choose your preferred language which you will use to connect your database with other program or, application, however, your preference(s) can be changed if you want later.



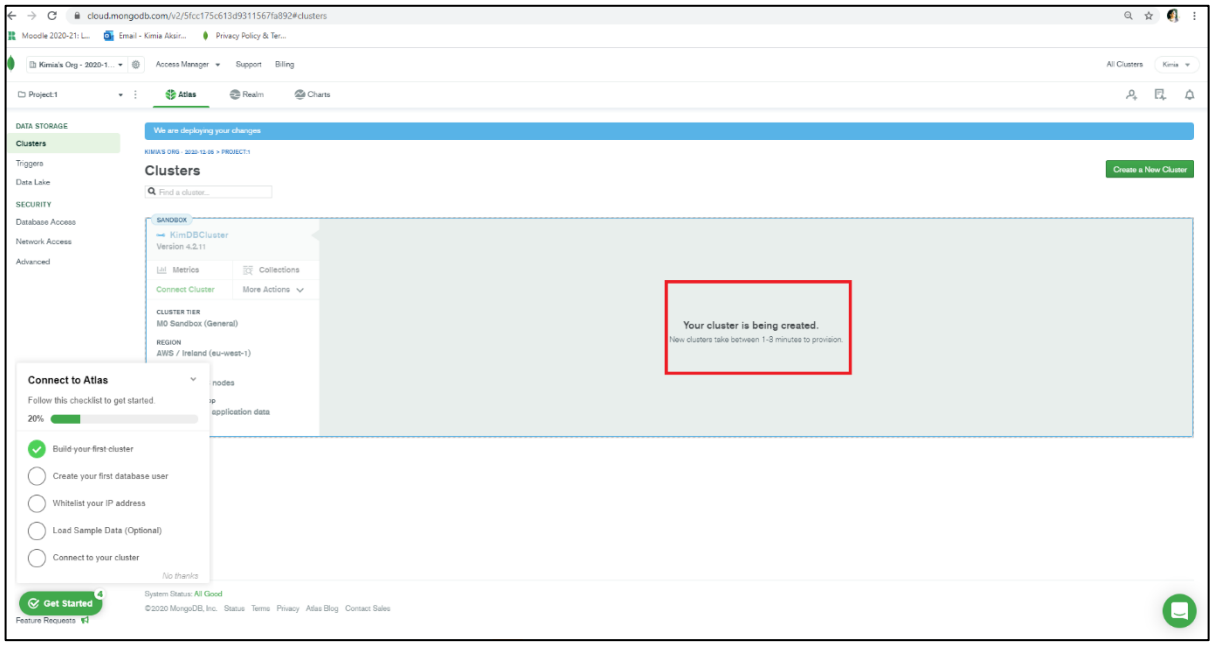
For now the free version is being chosen as this is appropriate for small application development.



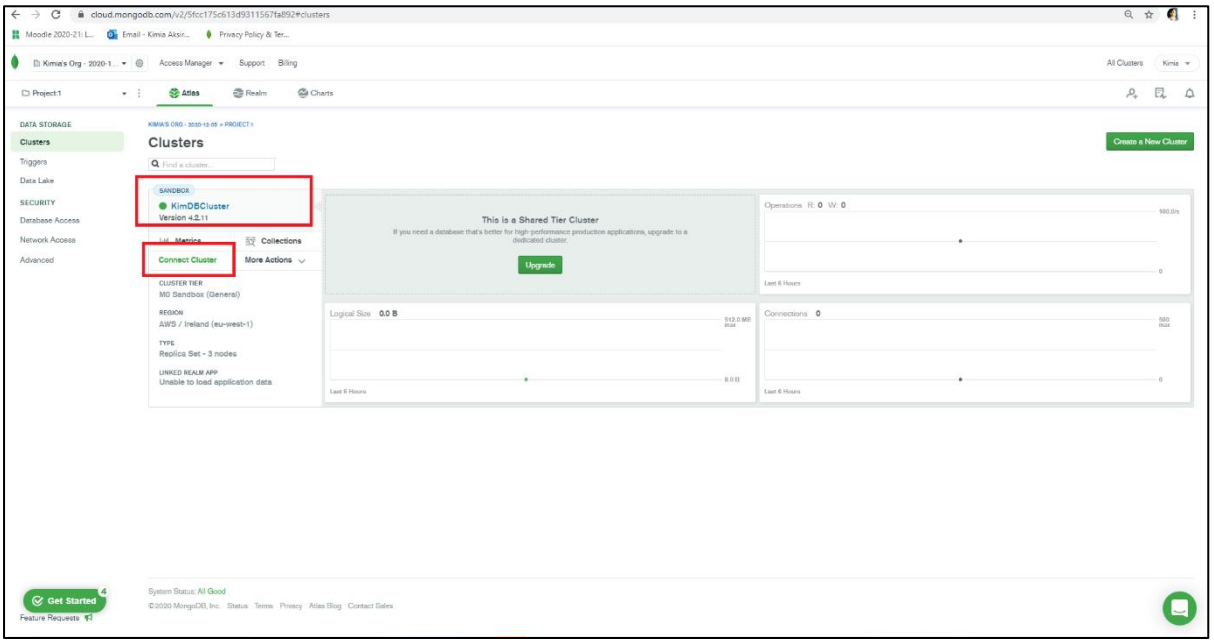
In the next step you will be asked to choose a cloud provider among the given options along with that you will also have choose your region. Keeping the "Cluster tier" option and "additional settings" default you will then give your cluster a name. Remember this name is unchangeable.



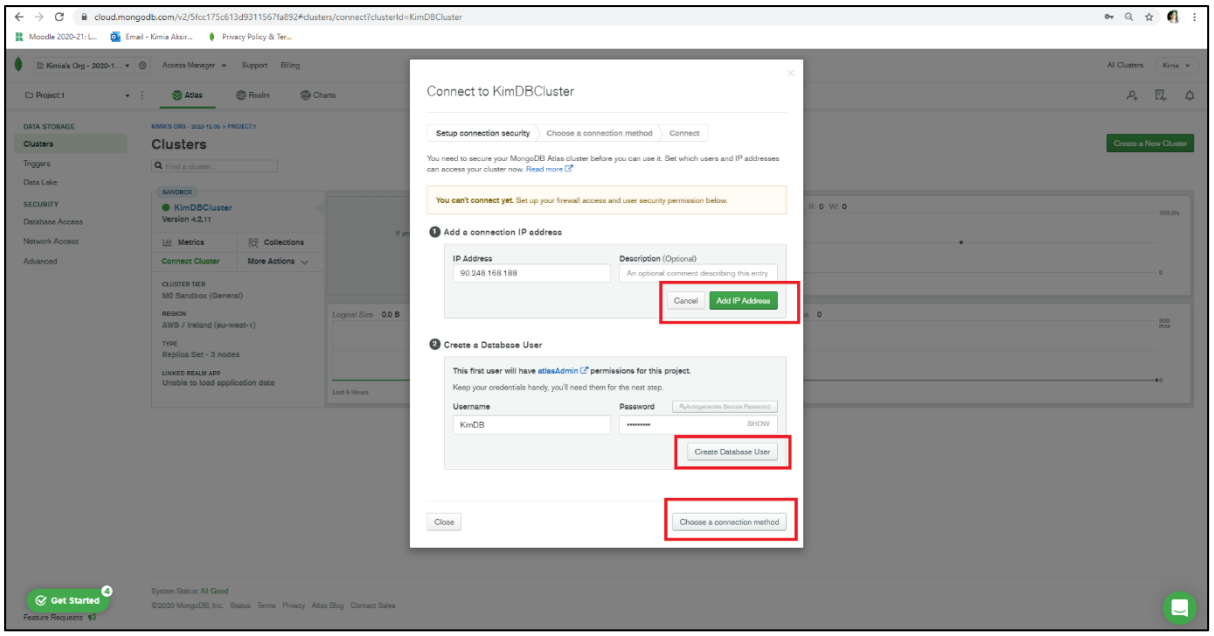
It takes a while, however, once the cluster is created you will be notified instantly.



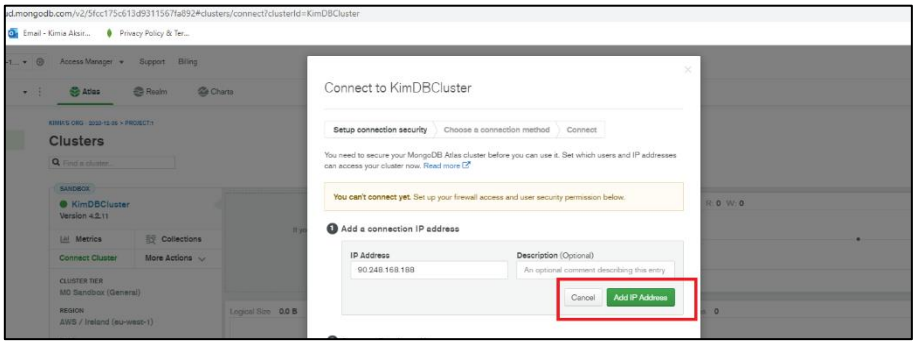
Once the cluster gets created, you will then be able to connect with it.



Now, you will be setting up your “connection security”, Create “Database user/users” and choose your “Connection Method”. To do so, follow the steps: a, b and c in the next page.

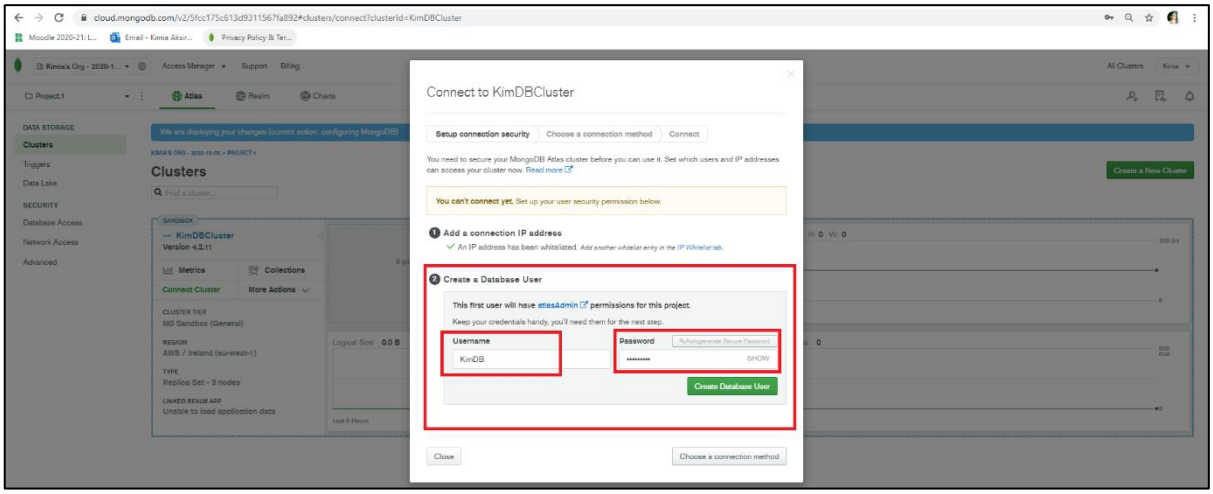


a) Add a connection IP address:

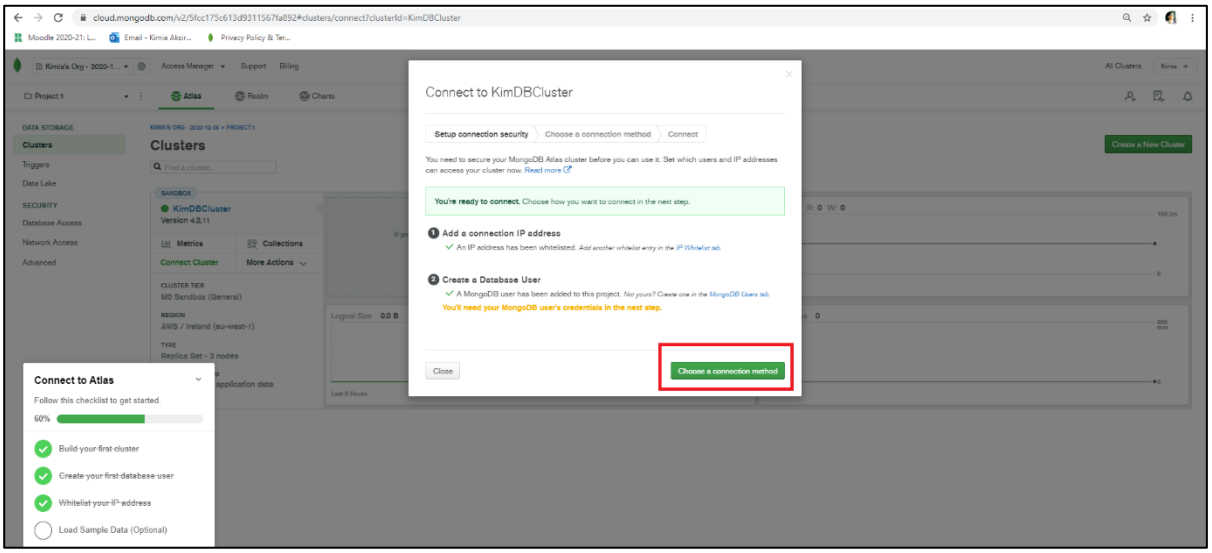


b) Create Database user

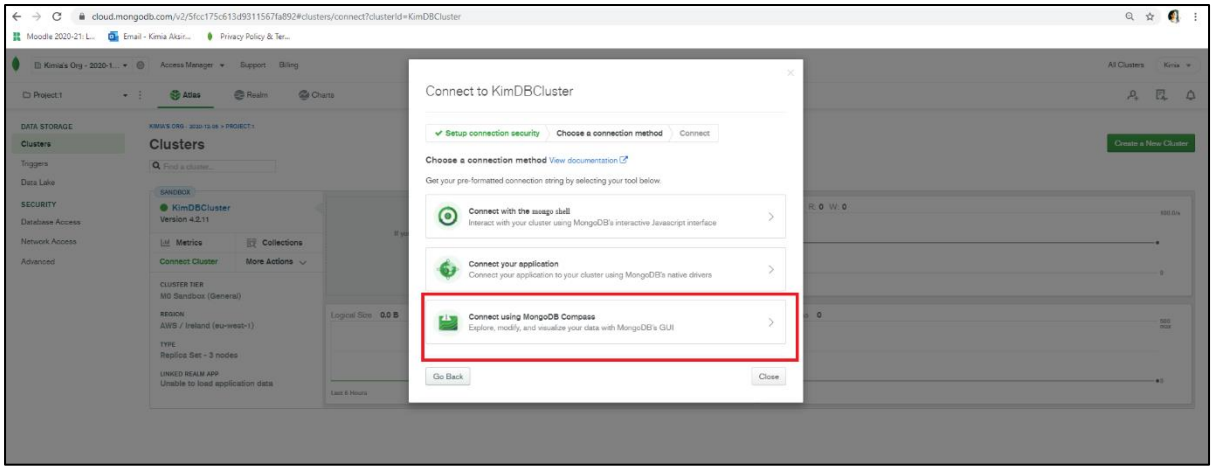
You have to remember the credentials you provide to access the database later.



c) Choose a connection method:

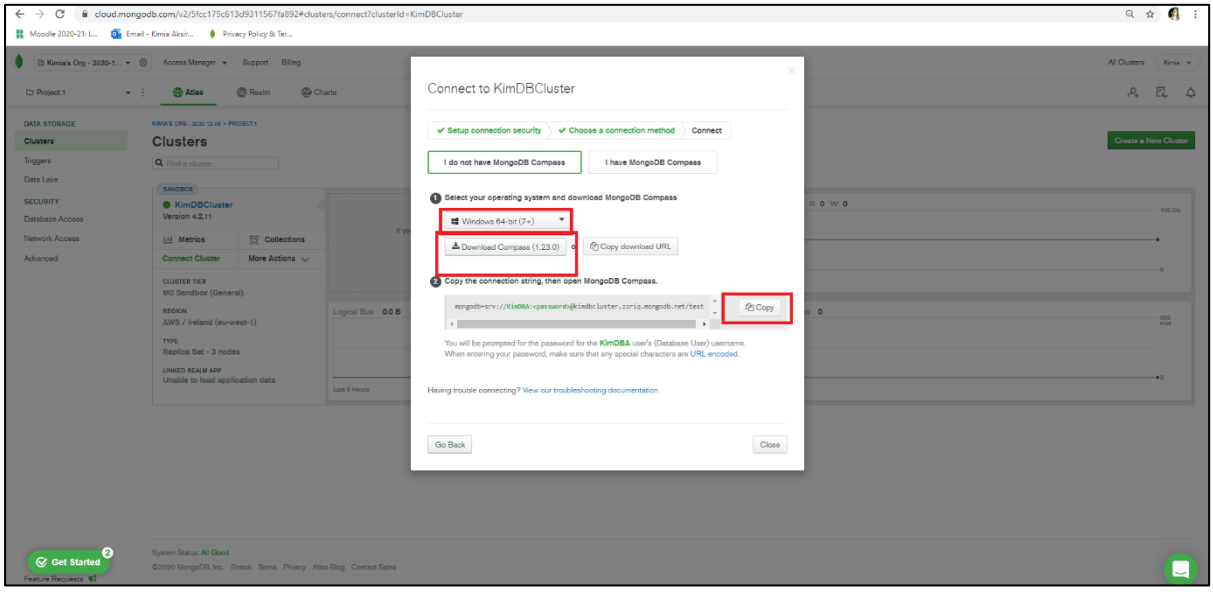


As, you have covered the steps above, now you will be given options to choose your connection method from. You will choose MongoDB Compass (As we planned to access the database through GUI).



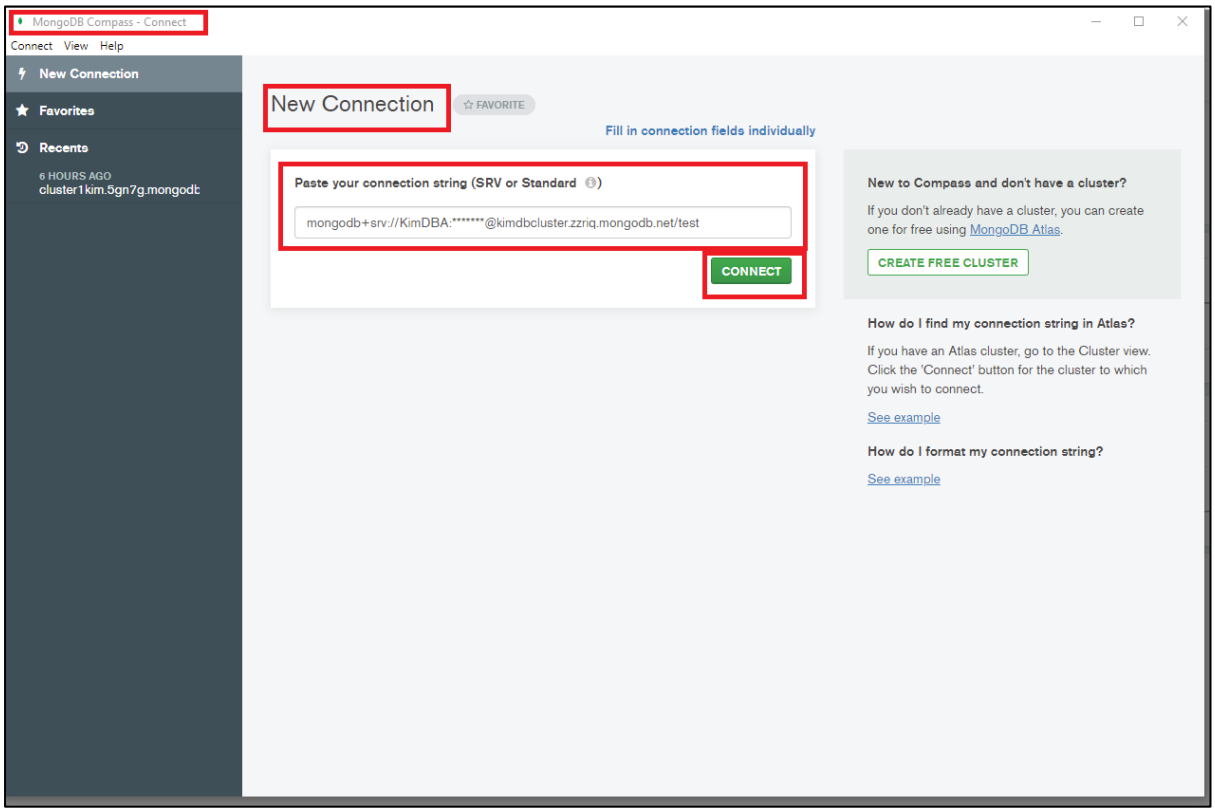
At this step if you do not have “MongoDB Compass” installed in your pc, you will now be able to download and install it with just a few steps. Download Compass compatible with your computer operating system.

[Do a copy of your “connection string” given here. You will need this immediately after your MongoDB compass is installed in your PC]



After installation of MongoDB Compass is successfully done, you will then be able to see the interface as below:

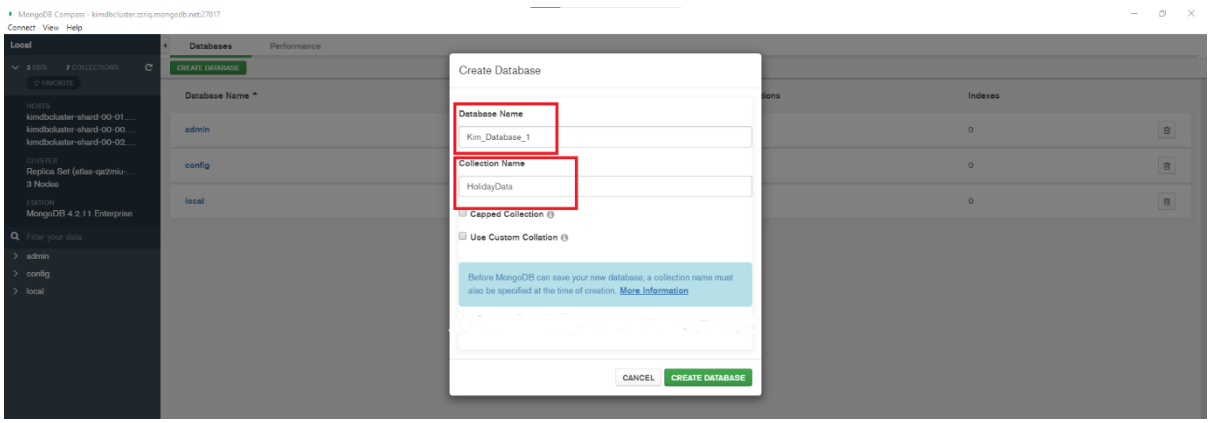
[Here, remember to paste the connection string that you copied in the last step and replace the “<password>” with the password that you created as a user of the database (in step: b))]



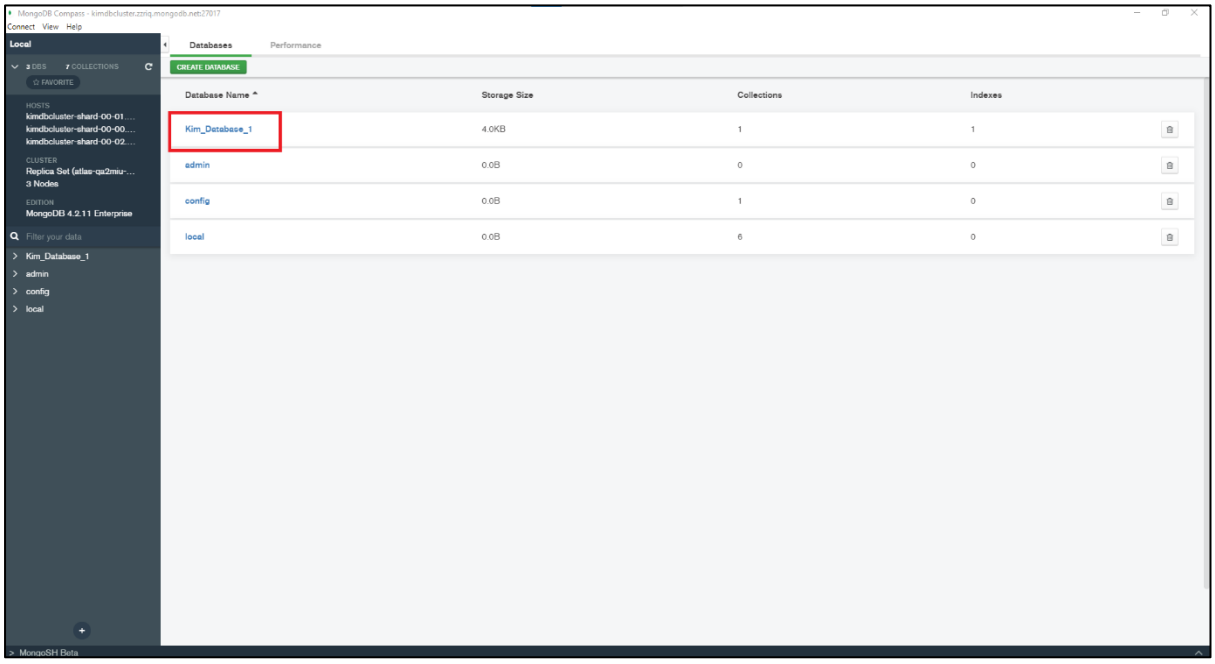
Now, you have your access to the cluster from MongoDB Compass and you will be able to see the default databases, and as a user you are authorized to create new databases, collection or, documents if you want! After you choose “create database option, you provide your database name the collection that you want to keep in the database.

[Capped collection and custom collation can be left unchecked]

See the next page..



The database is created.

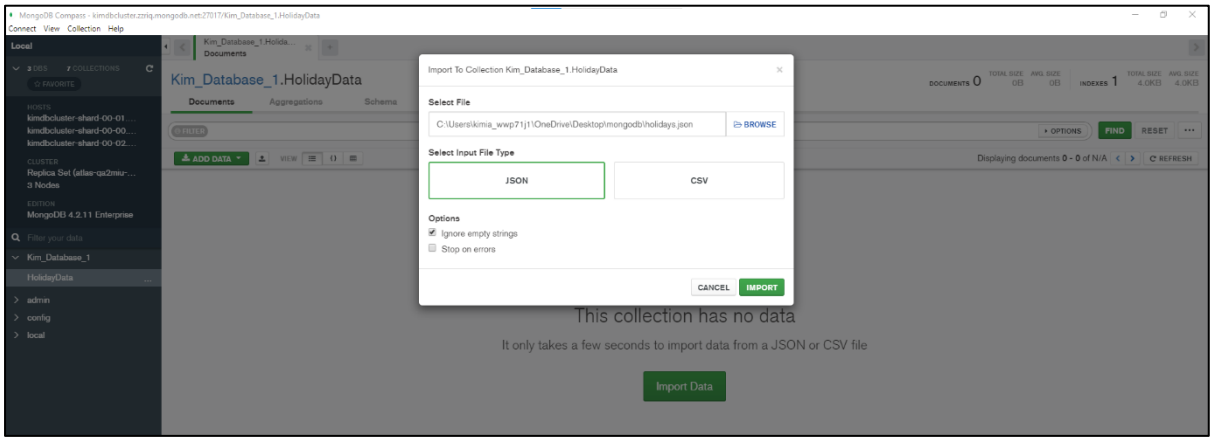


Here the databases that you will create in the same cluster will be visible.

Inside the database that you have created, you will now store data in it. But before that you need to create “collection”.

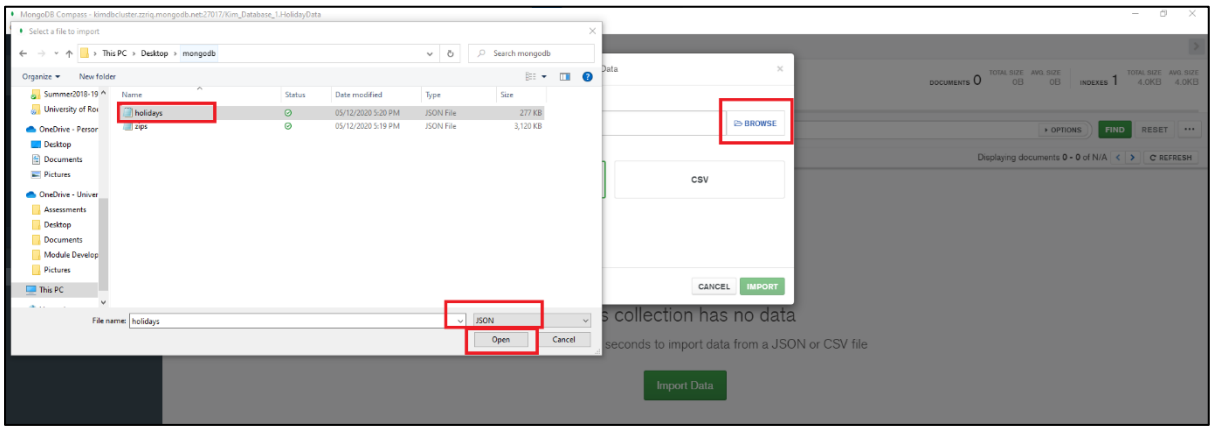
Collection “HolidayDate” is created.

Now, the data that you want to store in this database can be added manually by selecting the “add document” option or, you can import the documents from file directly from a directory. The file should be in either “JSON” or “CSV” format.



The file you are importing here in the next step is a “JSON” file (holidays.json).

[The sample data is available for you on moodle.]



The documents will be available and accessible by the users once the file is imported successfully.