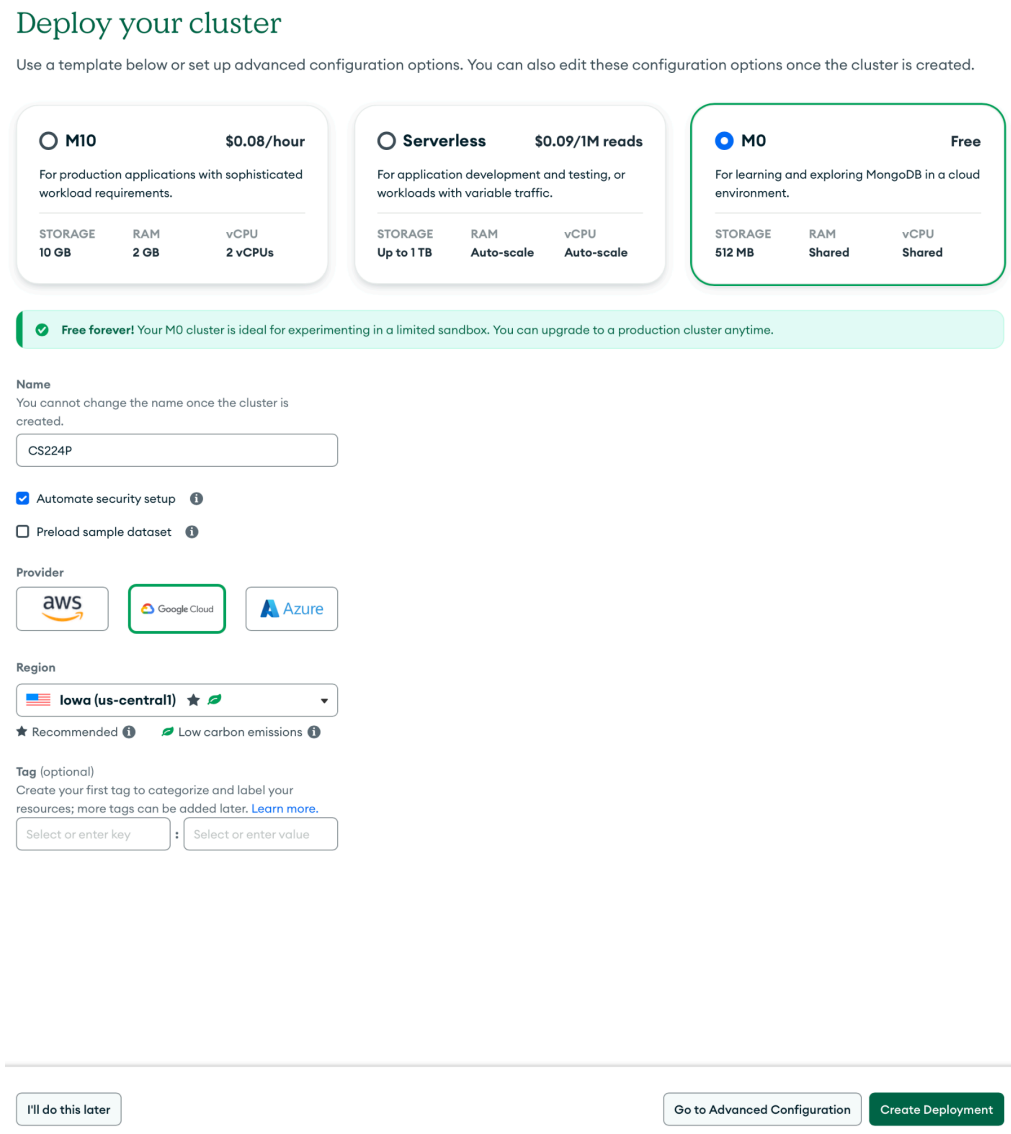
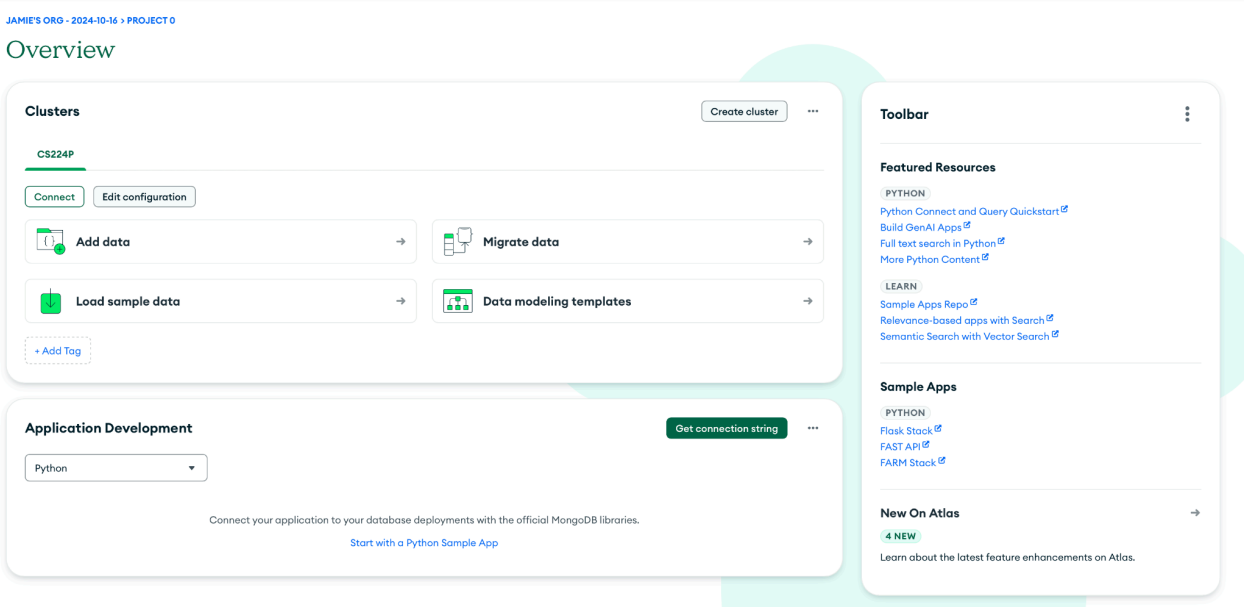
Homework Assignment #3 Setup

(MongoDB)

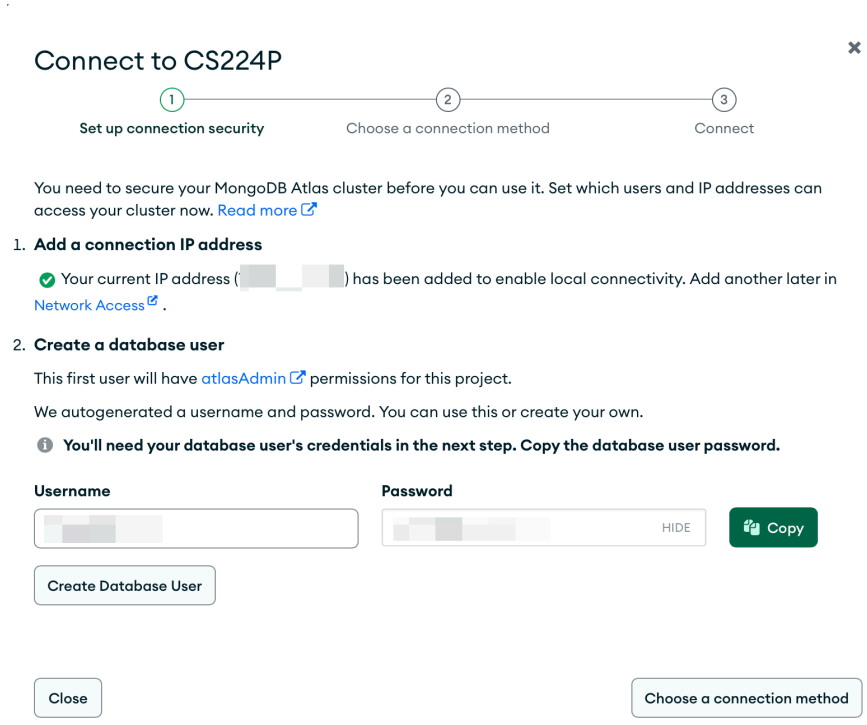
1. Create an account in the Atlas cloud: https://www.mongodb.com/cloud/atlas. Here are some additional instructions on how to set up your free Atlas cluster: https://docs.atlas.mongodb.com/getting-started/.
   (***NOTE:*** Don't load the sample data offered by MongoDB. We have our own data.)
2. When prompted to create a cluster, use "CS224P" as the cluster name and choose the following configurations:



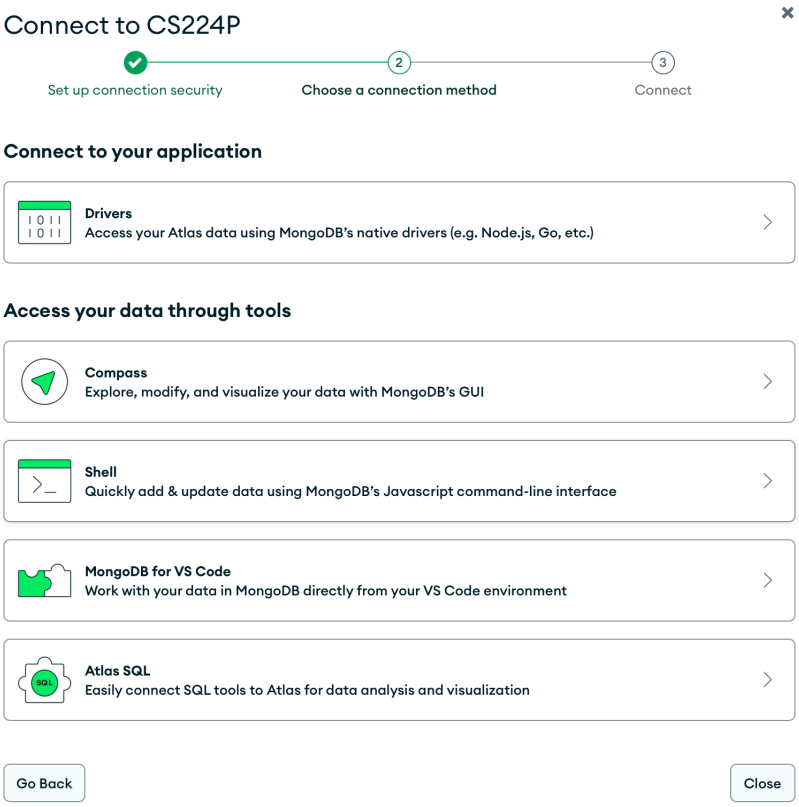
3. It will take a few minutes before your cluster is successfully created. After that, you will see something like the following screenshot in your dashboard page:



4. Choose "Connect" and you will be prompted with a pair of randomly generated credentials. Note this is different from your Atlas account credentials. ***Save the password somewhere because you will need that throughout the assignment.***

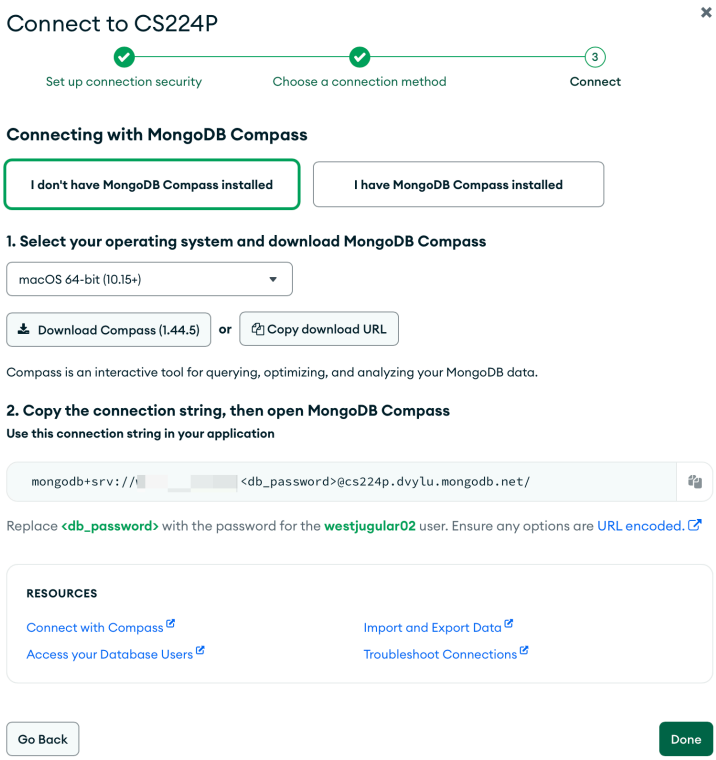


5. You will be presented with different methods to access the database. This doc will show using Compass for loading data. You will also need to use the Python Driver to complete the assignment. For each connection method, follow the steps shown in the connection window and make sure to **replace the password placeholder using the password you just saved**.

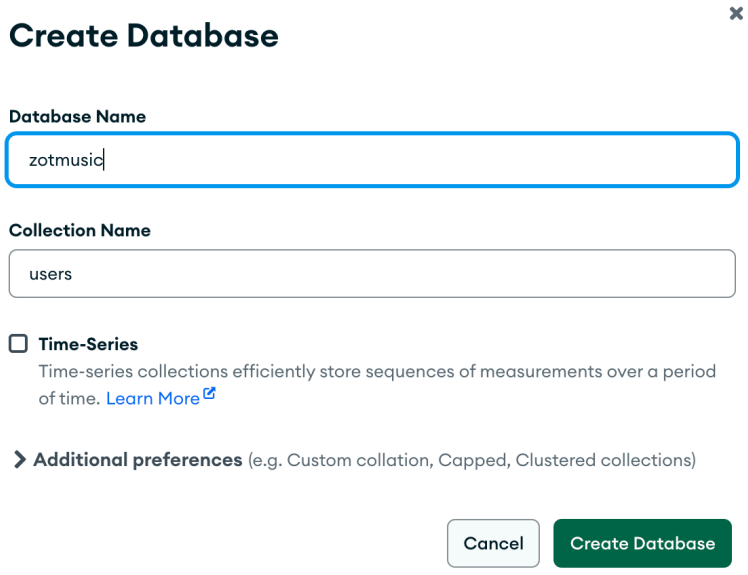


Loading data using Compass:

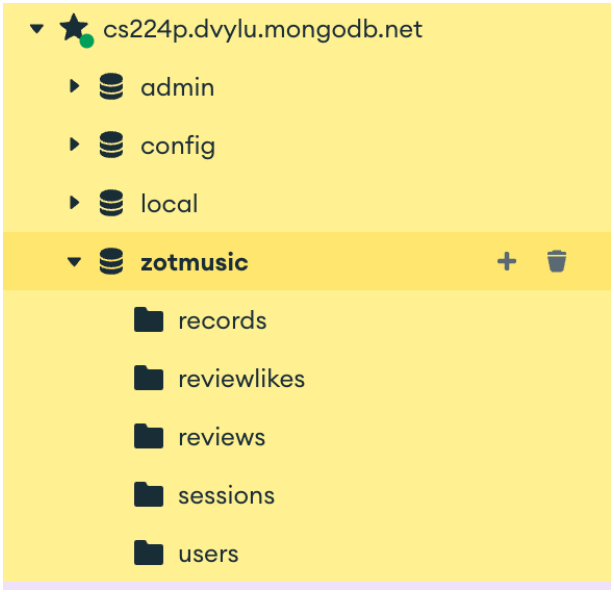
1. Follow the instructions from "Access your data through tools -> Compass" to install MongoDB Compass and connect to your cluster created on Compass.



2. Download all of the JSON files - one for each collection – from Canvas.
3. Create a new database with the name “zotmusic” from Compass. Note you also need to specify the first collection you want to add to the database. We will just use the "users" collection.



4. Finish the creation of 5 empty collections as shown below:



5. Using the **Add Data** feature in each collection, load its data by uploading the JSON files that you downloaded – do this one after another into independent collections.
6. Once you have loaded the data into all 5 collections, you are ready to go for the assignment!

Getting started with MongoDB using Jupyter/Python:

Your HW3 will be completed as an .ipynb file first then converted into PDF, so it'd be a good idea to familiarize yourself with this environment now. :-)).

To connect to your cluster using Python interfaces, follow the Atlas instructions from "Connect -> Drivers" and choose Python.

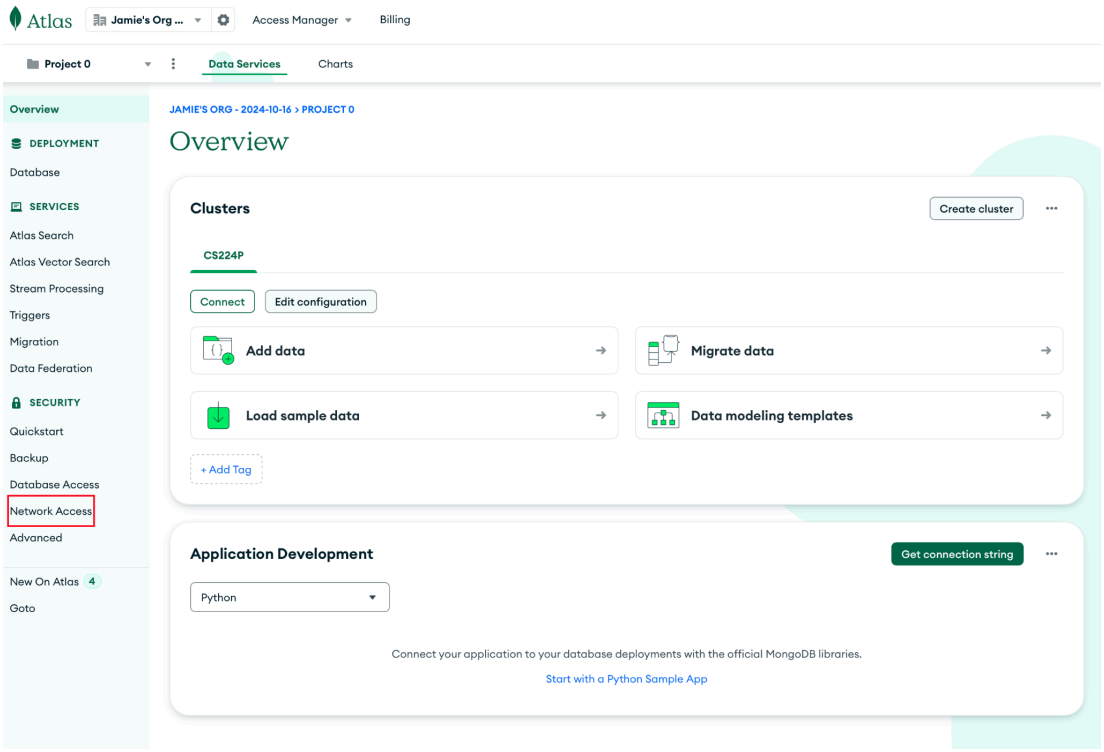
We have prepared a helper .ipynb (Jupyter notebook) file to make your first interaction with MongoDB a bit smoother. The file has a few examples on inserting data into and querying a database. You should open this file using a Jupyter environment of your choice, e.g., online services like Google Colab, DeepNote, UCI ICS's free JupyterHub service, or a local installation via Anaconda.

Troubleshooting:

- MongoDB has a security feature of only allowing your specified IP addresses to connect to your cluster. The feature may require you to whitelist your current

public IP address every time your IP address changes. This can be done in the Atlas cluster webpage.

- If you are using Colab or any other external environment to connect to the cluster, you may want to whitelist all addresses.
- To do so, go to “Network Access” under the Security tab from the Atlas cluster:



- Then click on “add ip address”
- Add 0.0.0.0/0 and confirm