Setup MySQL using Server Cloud

Step 1

Go to https://api.clever-cloud.com/v2/sessions/login?fromAuthorize=true and sign up using CMU email address.
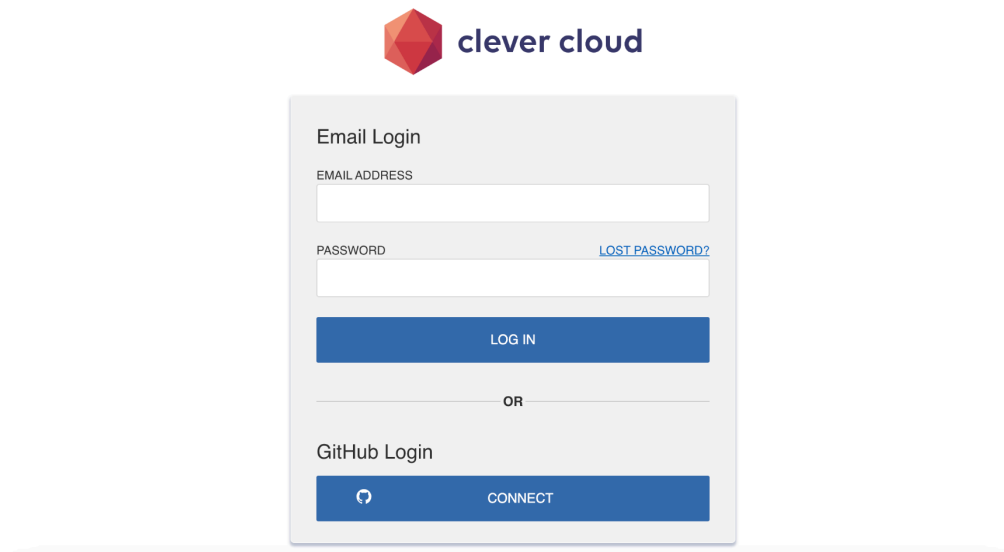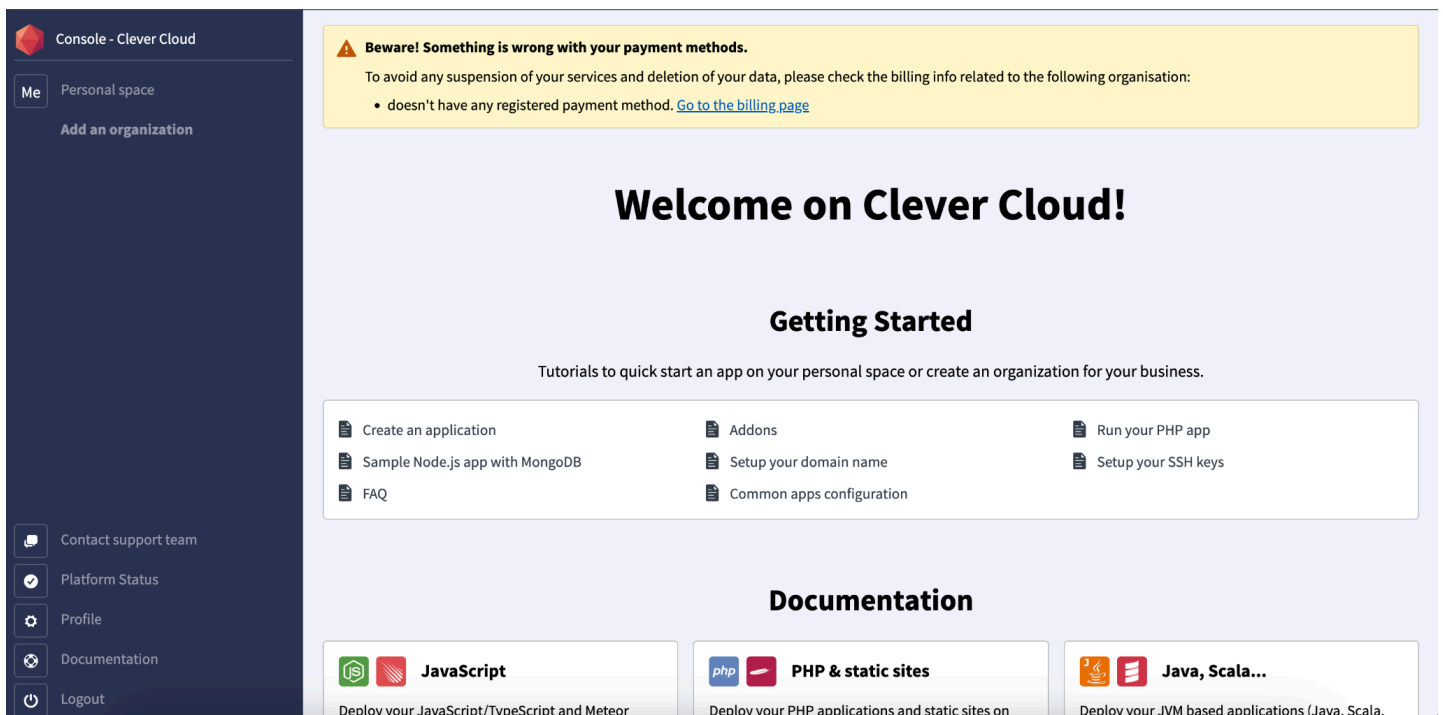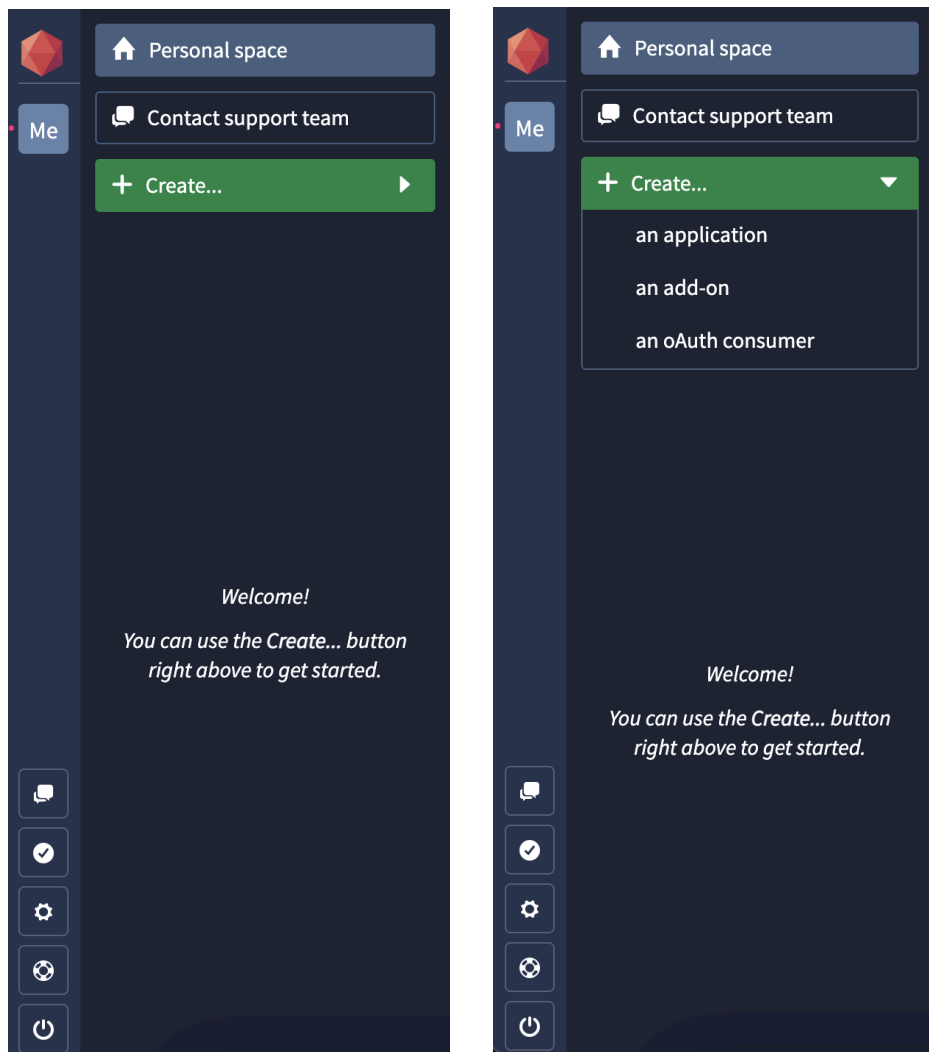
Step 2

Once you've signed in, you should see something like this. There should be "Personal Space" on the leftmost panel. If there isn't, create one.
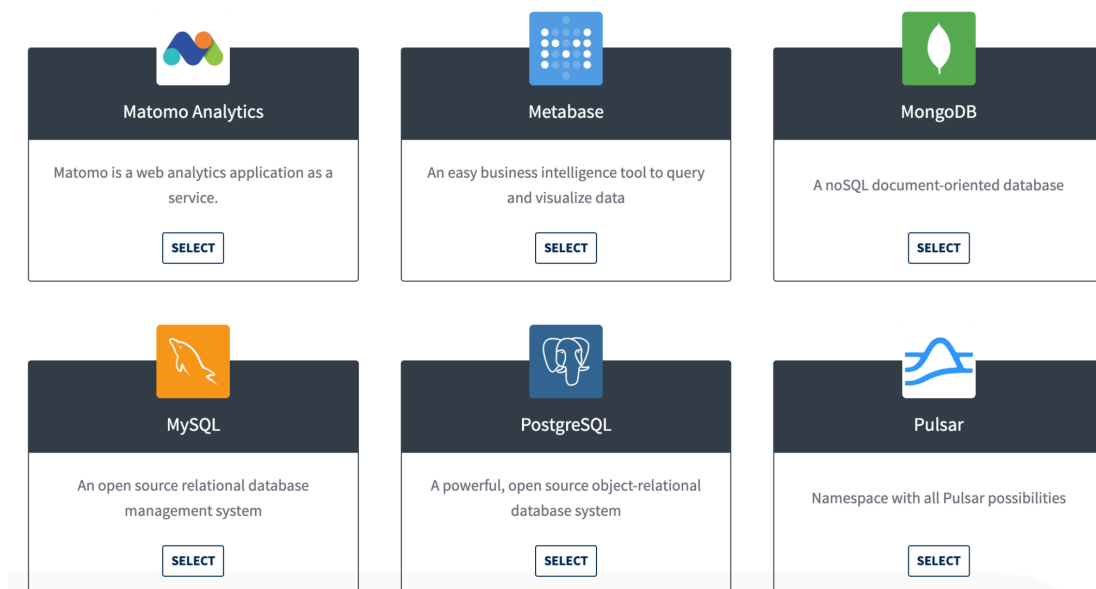
Click on "Personal Space", then click on "Create" and then click on "an add-on".

Step 3

Select "MySQL" from the options.

Select the "Dev" plan (free version for testing purposes). Click on "Next" at the bottom.

Step 4

Name your MySQL add-on as "recitation-30oct-<AndrewID>" like how it's shown below. Keep the region selected as Paris. Click "Next".
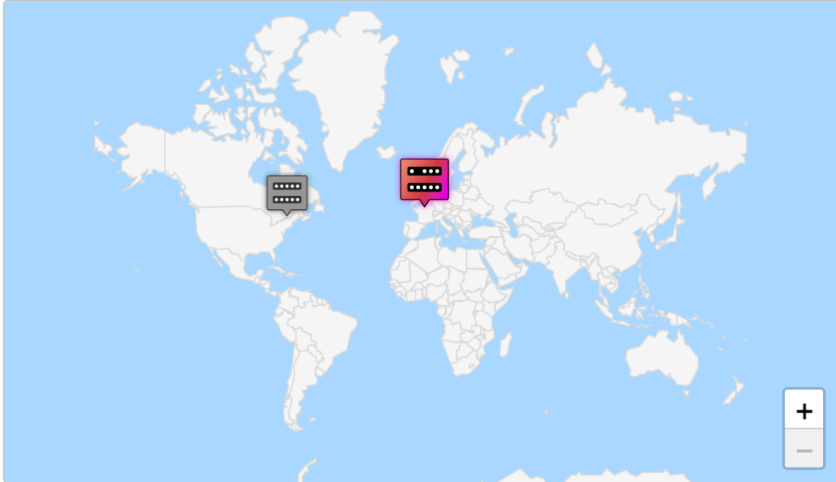

Step 5

Once your MySQL database is created, you will be able to see a bunch of credentials. Make sure you save all these values somewhere as we'll be using it during recitation in-class. More specifically, we'll need *Host, User, Password, Database Name & Port*.

Setup MongoDB using MongoDB Atlas

Step 1

Sign in using "Google" and then select your CMU email address.

Step 2

Click on "Create an Organization"
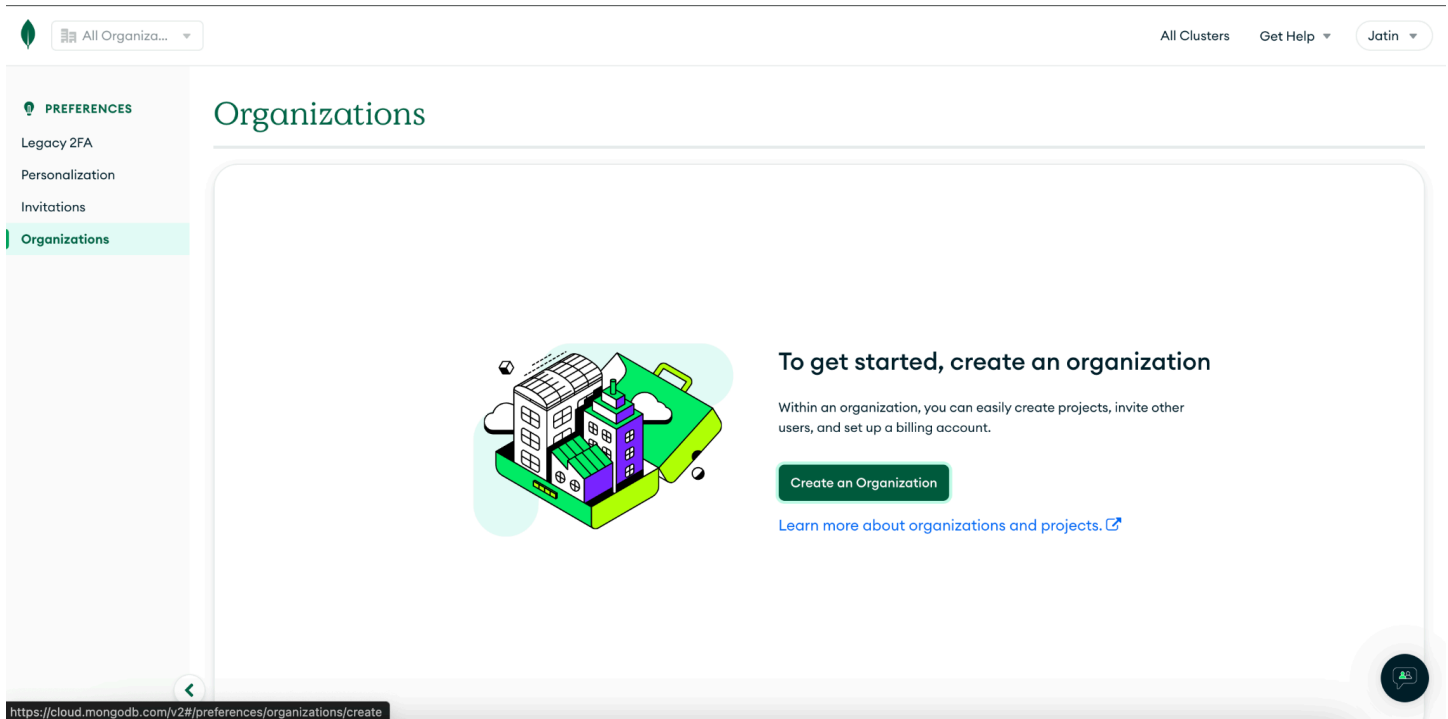
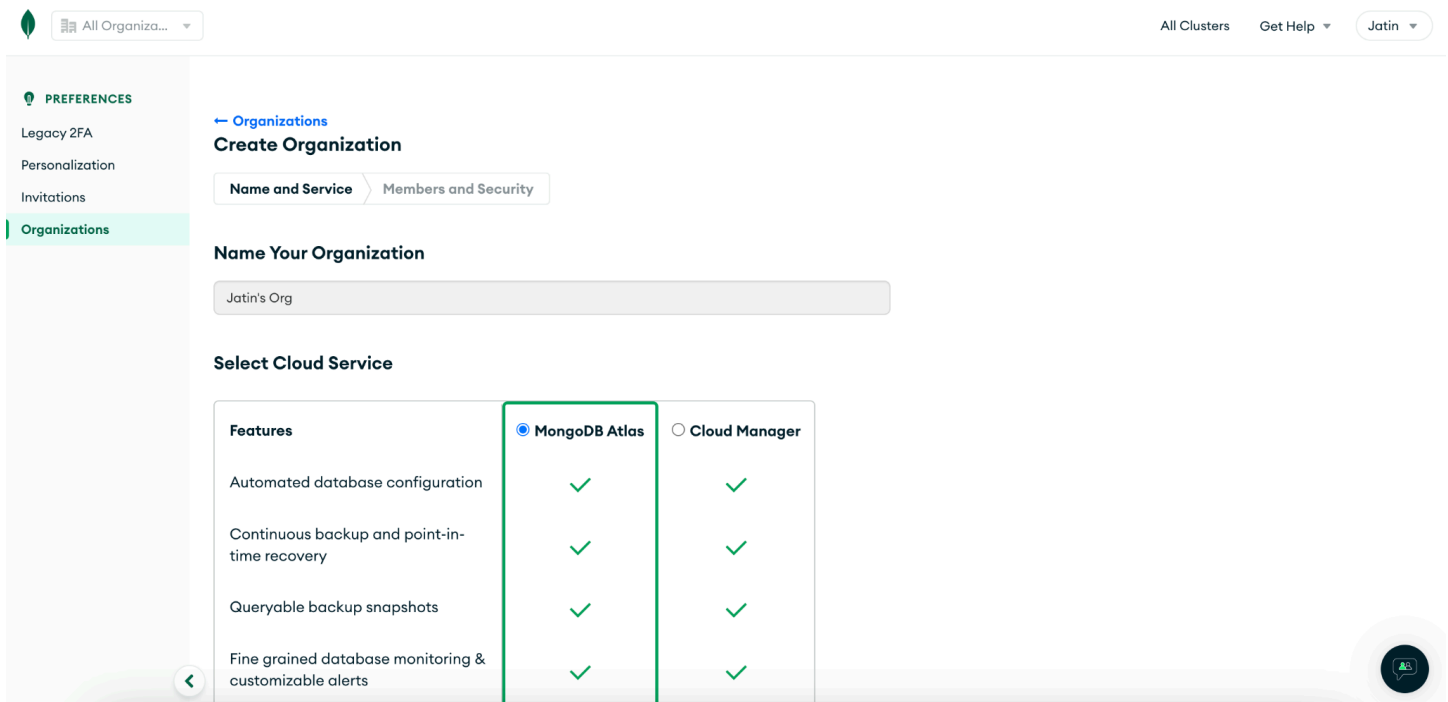In the **Name and Service** tab, start by giving a name to your organization. It could be anything. Make sure you select "MongoDB Atlas" while selecting Cloud Service. Click on "Next" at the bottom.

In the **Members & Security** tab, keep whatever is selected as is. Don't change anything and click on "Create Organization".

Step 3

Once you're inside your newly created organization, click on "New Project"

In the **Name Your Project** tab, name your Project as "Recitation-30Oct". Don't add anything in the Add Tags (optional) section. Click on "Next"

In the **Add Members** tab, don't change anything and then click on "Create Project". However, make sure your role is set as the Project Owner.

Step 4

Now, we have to create a new cluster within our newly created Project. Click on "Create"

Choose the free plan and name your cluster as "recitation-30oct-<AndrewID" as shown below.

Most of the settings would already be selected for you. There's no need to change anything else. Click on "Create Deployment"

Step 5

Once your cluster is ready, click on "Connect"

Create a username and password. Use your AndrewID as the username. For the password, preferably use something random (just for this recitation) and not an actual password that you use for other stuff. Click on "Create Database User" once you're happy with the username & password.

Connect to recitation-30oct-jartwani

You need to secure your MongoDB Atlas cluster before you can use it. Set which users and IP addresses can access your cluster now. Read more ⧉

1. **Add a connection IP address**

   ✅ Your current IP address (74.109.239.25) has been added to enable local connectivity. Only an IP address you add to your Access List will be able to connect to your project's clusters. Add more later in Network Access ⧉ .

2. **Create a database user**

   This first user will have atlasAdmin ⧉ permissions for this project.

   ℹ️ **You'll need your database user's credentials in the next step. Copy the database user password.**

   Username

   | jartwani |

   Password

   | ••••••••••• SHOW | 📋 **Copy**

   Create Database User

   Close   **Choose a connection method**

Click on "Close" once the database user has been created.

Connect to recitation-30oct-jartwani

You need to secure your MongoDB Atlas cluster before you can use it. Set which users and IP addresses can access your cluster now. Read more ⧉

1. **Add a connection IP address**

   ✅ Your current IP address (74.109.239.25) has been added to enable local connectivity. Only an IP address you add to your Access List will be able to connect to your project's clusters. Add more later in Network Access ⧉ .

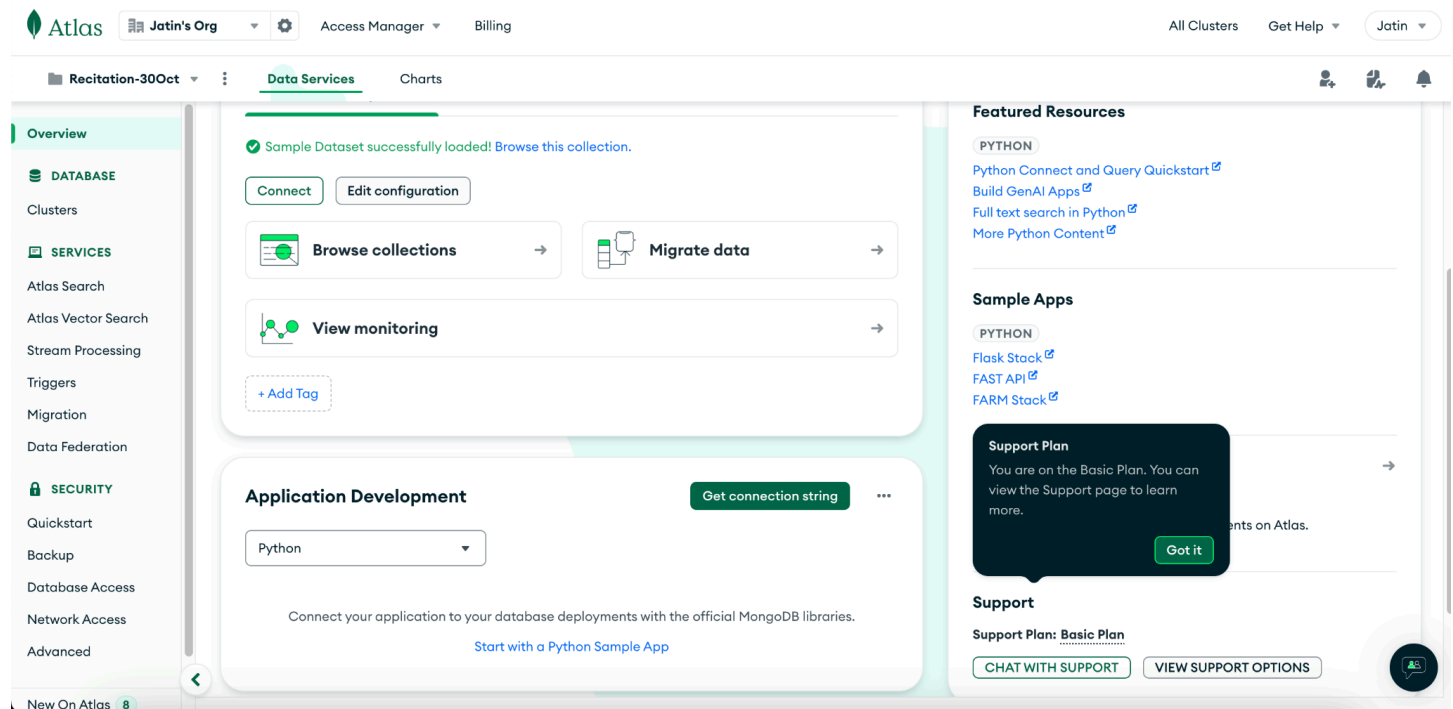2. **Create a database user**

   ✅ A database user has been added to this project. Create another user later in Database Access ⧉ .

   You'll need your database user's credentials in the next step.

   Close   **Choose a connection method**

Next, click on "Get connection string" within the **Application Development** section.

Copy the connection string and replace <db_password> with the password you just created for your database user and save it somewhere. We will be using this connection for the recitation in-class.

Connecting with MongoDB Driver

1. Select your driver and version

We recommend installing and using the latest driver version.

Driver

| Python ▼ |

Version

| 3.12 or later ▼ |

2. Install your driver

Run the following on the command line
Note: Use appropriate Python 3 executable

```
python -m pip install "pymongo[srv]"
```

View MongoDB Python Driver installation instructions. ☑

3. Add your connection string into your application code

Use this connection string in your application

◯ View full code sample

```
mongodb+srv://jartwani:<db_password>@recitation-30oct-jartwa.futpb.mongodb.net/?
retryWrites=true&w=majority&appName=recitation-30oct-jartwani
```

Replace **<db_password>** with the password for the **jartwani** database user. Ensure any option params are
URL encoded ☑ .

Step 6

Make sure within the **Network Access** tab on the left panel, the IP address is set to 0.0.0.0/0 (to ensure you can access your MongoDB server from anywhere). If not, edit and set it to 0.0.0.0/0