MongoDB Atlas Guide

MongoDB Atlas: Signup

1. Visit: https://account.mongodb.com/account/register and create an Atlas account.
2. Step-by-step instructions:
    a. Create an Atlas Account.

MongoDB Atlas: Deploy a Free Cluster

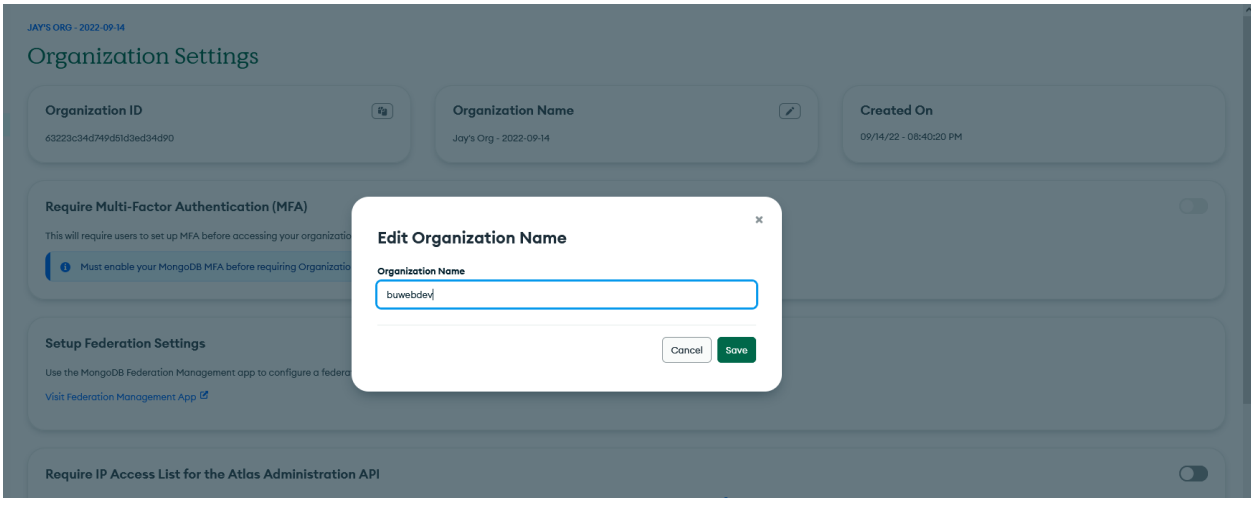
1. Step-by-step instructions:
    a. Deploy a Free Cluster
    b. Name the cluster: **BellevueUniversity**

Special note. Make sure you select the "Shared" deployment, which is their free cluster. MongoDB provides users with a free cluster, which is all you will need for this cohort.

MongoDB Atlas: Rename an Organization

1. Expand the "Organizations" menu in the navigation bar.
2. Click **View All Organizations**.
3. Rename an Organization
    a. Rename the organization **buwebdev**

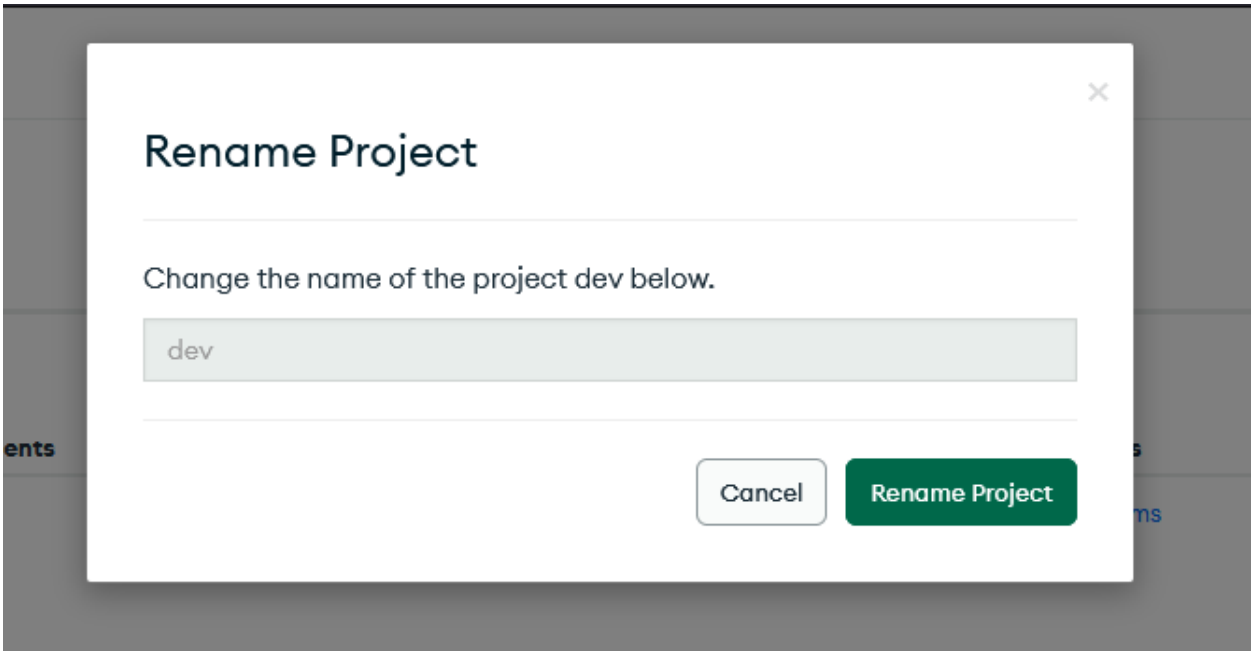
Figure 1.



MongoDB Atlas: Rename Project

1. View Projects
2. Click on the ellipse icon and select "Edit Project."
    a. Rename the project to **dev**

Figure 2.



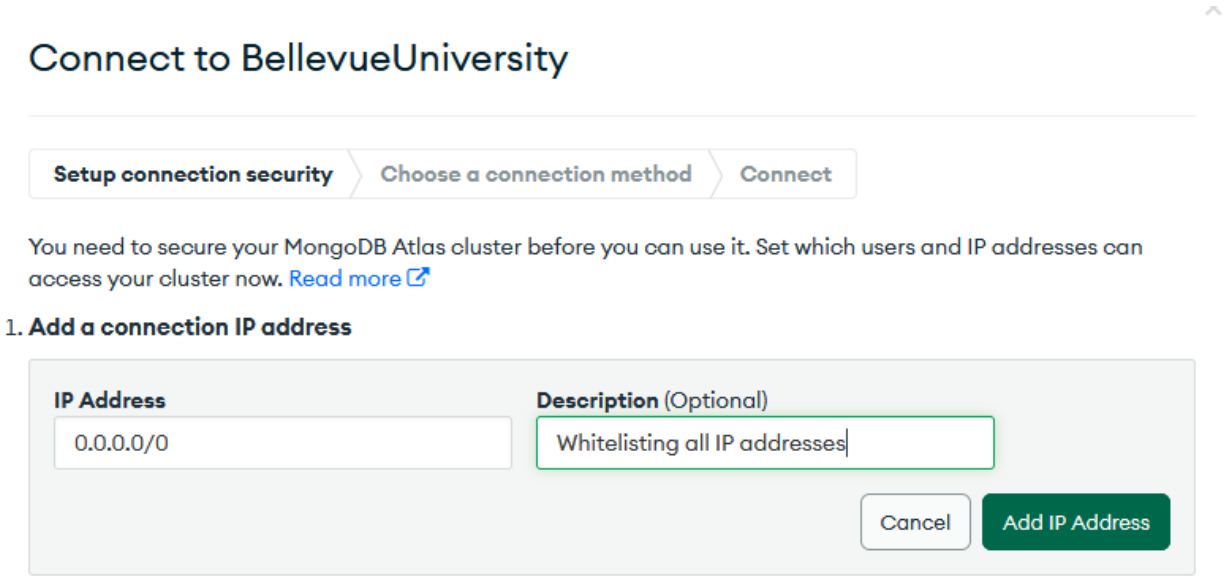
    b. **Special note**. If you run into issues or cannot locate the **Edit Project** option, you can always create a new project and delete the one that was created by default.
        i. Create a Project
        ii. Delete a Project

MongoDB Atlas: Whitelist IP Addresses

1. Select **Database** from the left-hand menu pane.
2. Step-by-step instructions:
    a. Add Your Connection IP Address to Your IP Access List
3. Make sure you select **Allow Access from Anywhere**.
    a. Verify the IP Address **0.0.0.0/0** is entered into the IP Address input field.
    b. Set a description to **Whitelisting all IP addresses**.

c. **Special note**. In a production database you would not do this. Instead, you would only add the IP addresses of the applications connecting to your cluster, which in our case would only be the Node.js applications we write in this cohort. I repeat, in a production database, do not do this!

Figure 3.



Special note. If you were not able to follow the above steps, because you could not locate the **Allow Access from Anywhere** button, you can access the IP settings through the **Network Access** link in the left-hand menu pane. Adding a new IP address is handled through the **ADD IP ADDRESS** button.

MongoDB Atlas: Create a new Database

1. Step-by-step instructions
    a. Create a Database
    b. Name the database using the following convention: **[course/projectName]DB**. For example, **web340DB**, **web420DB**, **web450DB**, **nodebucketDB**, **bcrsDB**, etc.,
    c. Collection names should be plural and be appropriate to the type of data they represent. For example, **users**, **employees**, **fruits**, **etc**.,

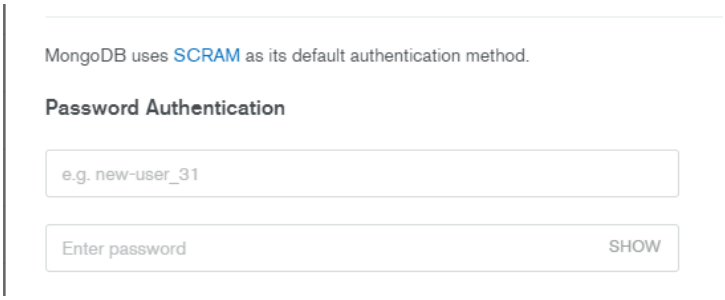
MongoDB Atlas: Create a Database User

1. Step-by-step instructions:
    a. Procedure
    b. Name the database user **web340_admin**
    c. **Special note.** All database users in this cohort must use the following naming convention: **[courseName]_admin**. For example, **web340_admin**, **web420_admin**, and **web450_admin**.

Special note. The following steps outline how to create a new database user in MongoDB Atlas. These steps are included because once the initial database user is created the above tutorial no longer applies. New database users will be created in WEB 335, WEB 420, and WEB 450.

1. Sign-in to MongoDB Atlas using your personal account.
2. Under the left-hand menu, there should be an option for **Database Access**. Select it and choose **Add New Database User**.
3. Under the **Add New Database User** dialog window, set the Authentication Method to **Password** and enter a username and password under the **Password Authentication** section (see Figure 4).

Figure 4.



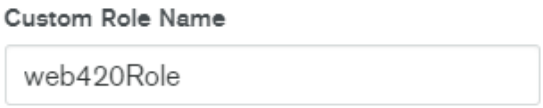
4. Add a username/password of your choosing, but make sure you either write it down or it is easy to remember. Next, scroll down to the bottom of the dialog window, and select **Add User**.
5. The list of users should update with the user you just added.

MongoDB Atlas: Custom Roles

The following steps outline how to create custom roles in MongoDB Atlas:

1. Sign-in to MongoDB Atlas using your personal account.
2. Under the left-hand menu, there should be an option for **Database Access**. Select it and choose the **Custom Roles** tab. Next, select **Add New Custom Role**.
3. Under the **Add Custom Role** dialog, enter a name for the custom role under the **Custom Role Name** input field (see Figure 5).

Figure 5.



   a. **Special note**. All custom roles in this cohort must use the following naming convention: **web340Role**, **web335Role**, **web420Role**, and **web450Role**.

4. Under the **Action or Role** select menu, choose **Collection Actions**.
5. Under the **Database** input field enter the name of the database you want this custom role to be assigned to (remember, the name you enter must match an actual database in your cluster).
6. Finally, select **Add Custom Role**.
7. The list of custom roles should update with the role you just added.

MongoDB Atlas: Custom Role Assignment

The following steps outline how to assign a custom role to an existing MongoDB user:

1. Sign-in to MongoDB Atlas using your personal account.
2. Under the left-hand menu, there should be an option for **Database Access**. Select it and choose the **Edit** button next to the user you want the custom role assigned to.
3. Under the **Database User Privileges** section, expand the **Custom Roles** section. Next, click on the **Add Custom Role** button and a select menu should appear. Expand the menu and choose the role you want to assign to this user.
4. Update the user record by clicking on the **Update User** button.

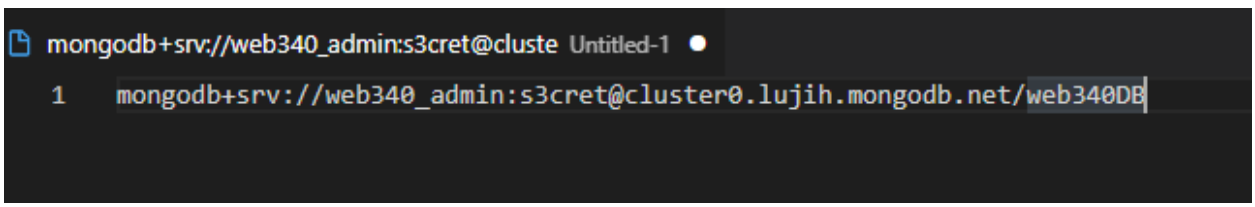
MongoDB Atlas: Compass Connection

MongoDB Compass is a Graphical User Interface (GUI) tool for MongoDB. It allows users to write queries against MongoDB, perform limited administrative functions, and visually interact with the collections in a database. To download MongoDB Compass, use the following link: https://www.mongodb.com/try/download/compass

1. Select the **Database** link from the left-hand menu pane.
2. Under the **Database Deployments** section, click on the **Connect** button.
3. Choose from 1 of 4 options:
    a. Connect with the Mongo Shell.
    b. Connect your application.
    c. Connect with MongoDB Compass.
    d. Connect using VS Code.

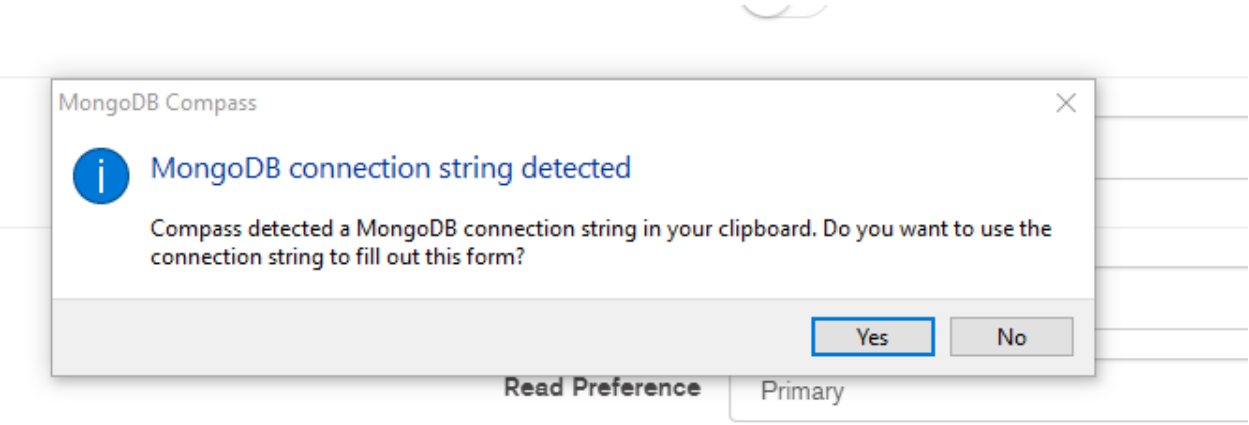
4. In this tutorial, I will connect using **MongoDB Compass**.
5. Under the **Copy the connection string, then open MongoDB Compass** section, copy the provided connection string.
    a. **Special note**. Make sure you read the text underneath the connection string. The **<username>** and **<password>** and **<database_name>** will need to be updated to match the username, password, and database of the database you are trying to connect to. For example, if I am trying to connect to a database named **web340DB** with a username of **web340_admin** and a password of **s3cret**, I would make the following changes to the provided connection string:

Figure 6.

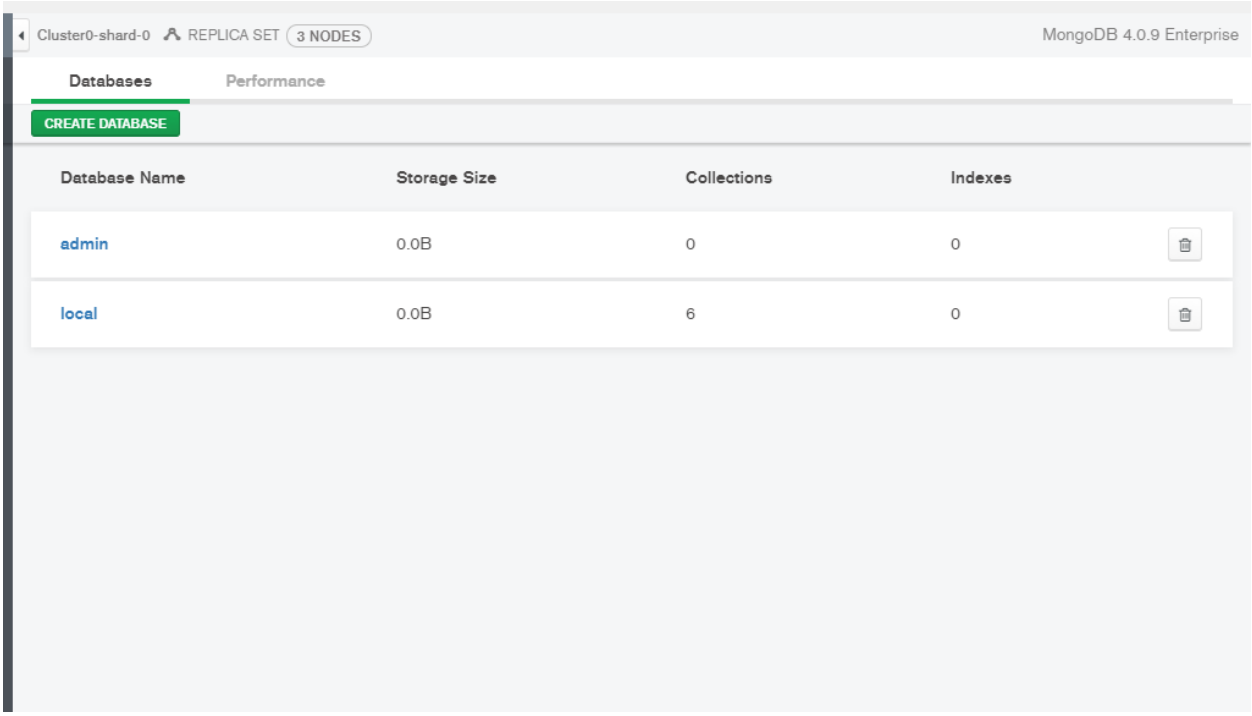


6. Open MongoDB Compass

a. **Special note**. MongoDB Compass should prompt you to use the connection string that was saved to the clipboard. If you do not receive this message, go back through the steps a second time.



7. Select **Yes.**
8. Enter the database usernames password (if prompted).
9. Click **Connect**.



Special note. You do not need MongoDB Compass to connect to MongoDB. This is a GUI tool similar to VS Code or other GUI tools. You can access your MongoDB database from any of the methods:

a. MongoDB Compass.
b. VS Code MongoDB Plug-in.
c. MongoDB Atlas website.