

# Hack(H)er413 2020

## MongoDB Atlas Workshop – Setup Instructions

### Overview

This guide will walk you through the steps to setup your development environment prior to the **MongoDB Atlas Workshop**.

### Objectives

1. Setup a free MongoDB managed database with MongoDB Atlas on AWS.
2. Install MongoDB Compass Community which is a UI for working with your MongoDB database.
3. Install Node.js which is a JavaScript runtime.
4. Install Visual Code Studio which we will use as our source code editor.
5. Set up the development folder.

### Google Chrome

During this coding tutorial you will need to use Google Chrome. Google Chrome is a developer friendly browser. If you don't already have Google Chrome Installed, you can do so from the [Google Chrome](https://www.google.com/chrome/) (<https://www.google.com/chrome/>) site.

### Part 1: Setup Free MongoDB Atlas

MongoDB is a free and open-source document-oriented NoSQL database. You can install and run [MongoDB Community Server](https://www.mongodb.com/download-center/community) (<https://www.mongodb.com/download-center/community>) locally. MongoDB Atlas is a cloud-hosted MongoDB service on AWS, Azure or GCP. They provide a free sandbox environment for getting started with MongoDB. We will be using MongoDB Atlas on AWS.

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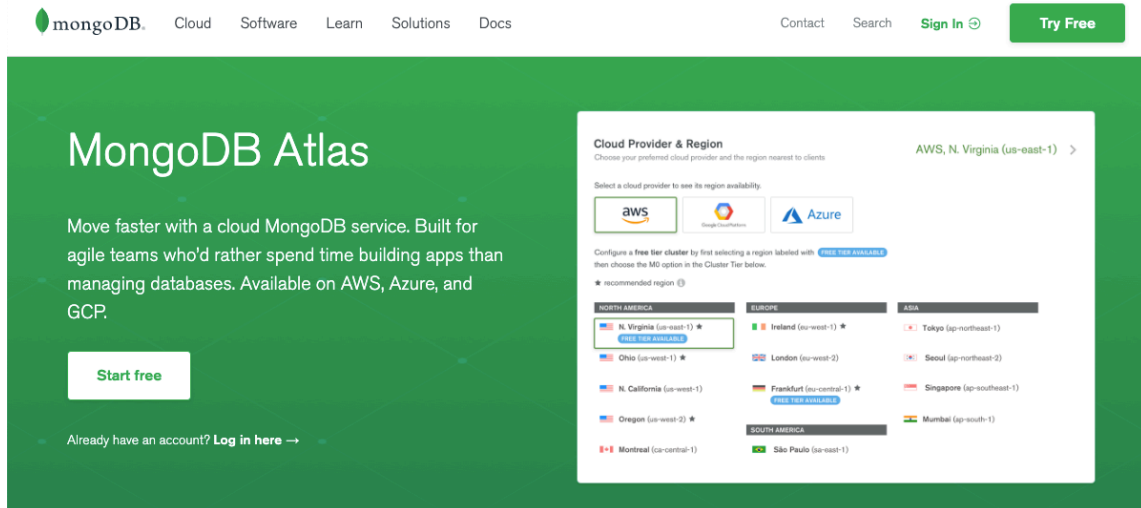
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1. Navigate to [MongoDB Atlas](https://www.mongodb.com/cloud/atlas) (<https://www.mongodb.com/cloud/atlas>). Select the **Start Free** button:



2. Enter your information, select the **I agree** box and then select the **Get started free** button:  
**\*\*Make sure to remember/record the email and password used as it will be needed during the lab.**

The screenshot shows the MongoDB Atlas sign-up form. It has a header with the MongoDB Atlas logo. Below the logo, it says 'Get started free' and 'No credit card required'. The form fields are: 'Your Work Email', 'First Name', 'Last Name', and 'Password'. There is a checkbox for 'I agree to the terms of service and privacy policy.' and a green 'Get started free' button at the bottom.

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3. Select the **Create a Cluster** button in the **Starter Clusters** section (FREE):

**Starter Clusters**

For teams learning MongoDB or developing small applications.




- ✓ Highly available auto-healing cluster
- ✓ End-to-end encryption
- ✓ Role-based access control
- ✗ No downtime scaling
- ✗ Network isolation
- ✗ Realtime performance metrics

Starting at  
**FREE**

Create a cluster








4. Keep the defaulted Cloud Provider & Region (should be AWS and us-east-1). Don't change anything under Cluster Tier, Additional Settings or Cluster Name. Select the green **Create Cluster** button on the bottom right of the page:

Cloud Provider & Region AWS, N. Virginia (us-east-1) ▾

Create a free tier cluster by selecting a region with **FREE TIER AVAILABLE** and choosing the **M0** cluster tier below.

★ Recommended region ⓘ

NORTH AMERICA	EUROPE	ASIA
 <b>FREE TIER AVAILABLE</b>	 <b>FREE TIER AVAILABLE</b>	 <b>FREE TIER AVAILABLE</b>
 <b>FREE TIER AVAILABLE</b>	 <b>FREE TIER AVAILABLE</b>	 <b>FREE TIER AVAILABLE</b>
	<b>AUSTRALIA</b>	
	 <b>FREE TIER AVAILABLE</b>	

Cluster Tier M0 Sandbox (Shared RAM, 512 MB Storage) **Encrypted** ▸

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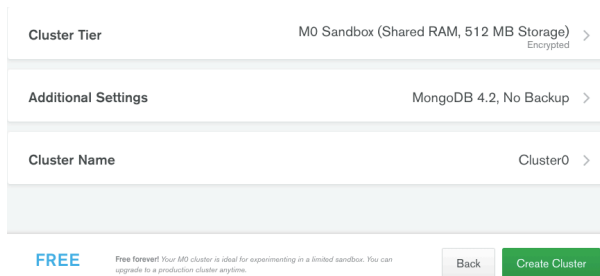
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## MongoDB Atlas Workshop – Setup Instructions



Cluster Tier M0 Sandbox (Shared RAM, 512 MB Storage) Encrypted >

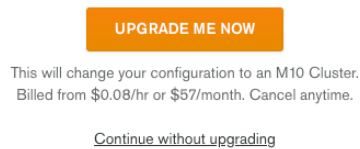
Additional Settings MongoDB 4.2, No Backup >

Cluster Name Cluster0 >

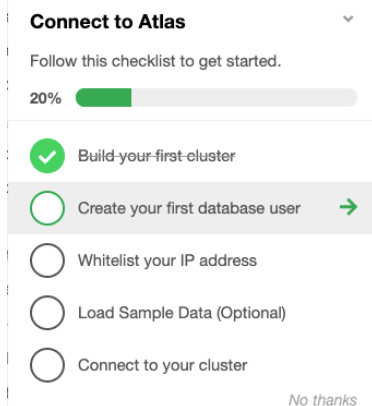
**FREE** Free forever! Your M0 cluster is ideal for experimenting in a limited sandbox. You can upgrade to a production cluster anytime.

[Back](#) [Create Cluster](#)

5. You will get a popup window asking if you want to Upgrade to a Dedicated Cluster. Select the **Continue without upgrading** link at the very bottom:



6. It can take several minutes for your cluster to be created. Select **Create your first database user**:



**Connect to Atlas** ▾

Follow this checklist to get started.

20%

- ☒ Build your first cluster
- ☐ Create your first database user →
- ☐ Whitelist your IP address
- ☐ Load Sample Data (Optional)
- ☐ Connect to your cluster

[No thanks](#)

7. Click on **Database Access**. Then select the green **ADD NEW USER** button:

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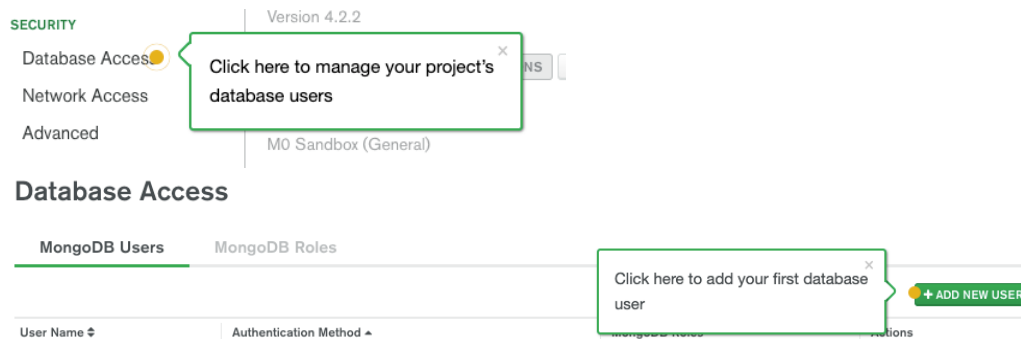
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## MongoDB Atlas Workshop – Setup Instructions



- Keep the default method as **PASSWORD**. Enter **rwuser1** in the username field and then enter a password. Keep the default **Read and write to any database** option. Select the green **Add User** button:

**\*\*Make sure to remember/record the password used as it will be needed during the lab.**

Add New User

Choose Method

PASSWORD CERTIFICATE

SCRAM Authentication

SCRAM is MongoDB's default authentication method.

rwuser1

e.g. new-user\_31

SHOW

Autogenerate Secure Password

User Privileges

Atlas admin

Read and write to any database

Only read any database

Select Custom Role

Add Default Privileges

☐ Save as temporary user

Cancel Add User

- Select **Whitelist your IP address**:

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### Connect to Atlas

Follow this checklist to get started.

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Build your first cluster



Create your first database user



Whitelist your IP address



Load Sample Data (Optional)



Connect to your cluster

[No thanks](#)

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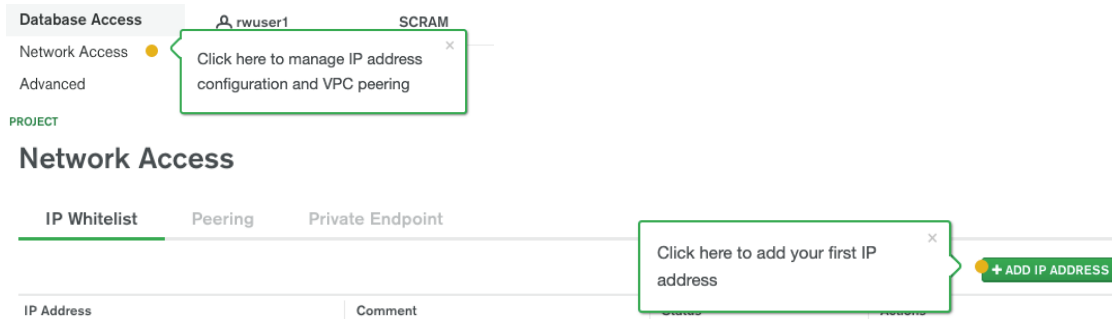


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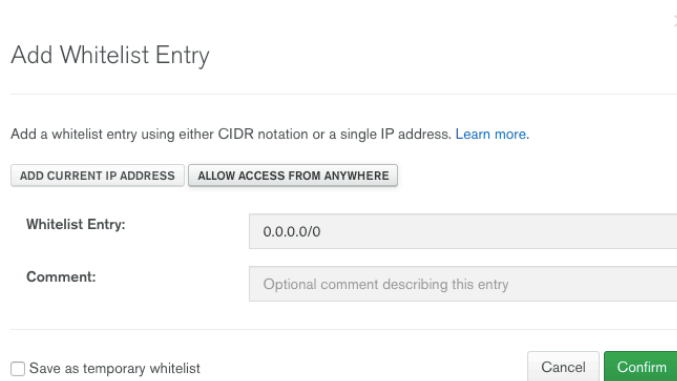
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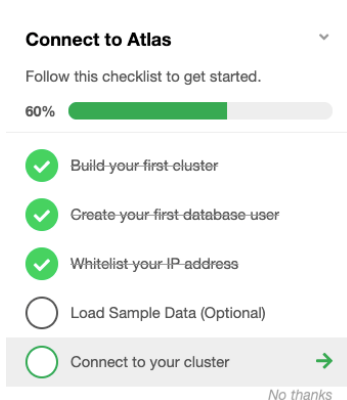
10. Click on **Network Access**. Then select the green **ADD IP ADDRESS** button:



11. Select **ALLOW ACCESS FROM ANYWHERE** and then select the green **Confirm** button:



12. Skip the **Load Sample Data** task and select **Connect to your cluster**. We will be adding data during the lab:



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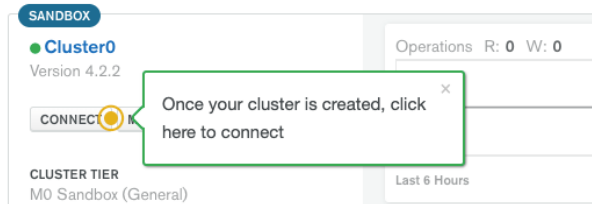
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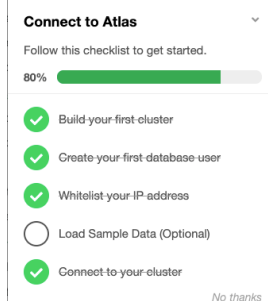
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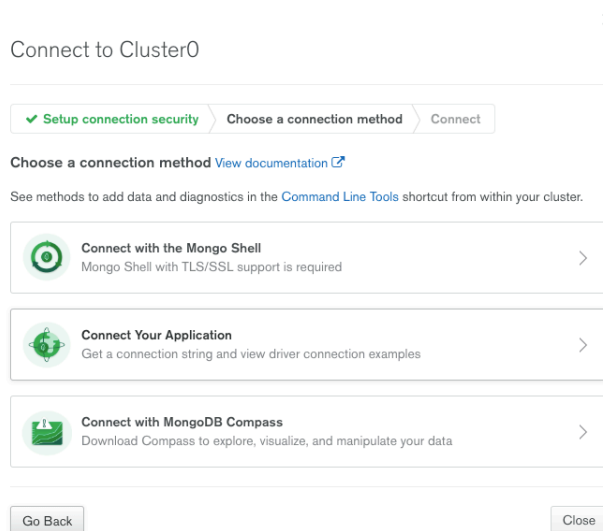
13. Click on **CONNECT**:



14. If the **Connect to Atlas** task list opens, you can close it by clicking on the down arrow in the upper right corner of the list:



15. Select the bottom option **Connect with MongoDB Compass** and proceed to Part 2.



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### Part 2: Install MongoDB Compass

1. Select your operating system in section 1 **Download...** Then select the **Download Compass** button:

Windows	MAC
<div><div>Connect to Cluster0</div><div><div>✓ Setup connection security</div><div>✓ Choose a connection method</div><div>Connect</div></div><div><div>I do not have Compass</div><div>I have Compass</div></div><div><div>1 Download the latest version of Compass (1.20.4)</div><div>Windows 64-bit (7+)</div><div>Download Compass (1.20.4) or Fetch via URL</div></div><div><div>2 Copy the connection string below, and open Compass:</div><div>mongodb+srv://rwuser1:&lt;password&gt;@cluster0-3icku.mongodb.net/test</div><div>Copy</div><div>Replace &lt;password&gt; with the password for the rwuser1 user. When entering your password, make sure that any special characters are URL encoded.</div><div>Having trouble connecting? <a href="#">View our troubleshooting documentation</a></div><div><div>Go Back</div><div>Close</div></div></div></div>	<div><div>Connect to Cluster0</div><div><div>✓ Setup connection security</div><div>✓ Choose a connection method</div><div>Connect</div></div><div><div>I do not have Compass</div><div>I have Compass</div></div><div><div>1 Download the latest version of Compass (1.20.4)</div><div>OS X 64-bit (10.10+)</div><div>Download Compass (1.20.4) or Fetch via URL</div></div><div><div>2 Copy the connection string below, and open Compass:</div><div>mongodb+srv://rwuser1:&lt;password&gt;@cluster0-3icku.mongodb.net/test</div><div>Copy</div><div>Replace &lt;password&gt; with the password for the rwuser1 user. When entering your password, make sure that any special characters are URL encoded.</div><div>Having trouble connecting? <a href="#">View our troubleshooting documentation</a></div><div><div>Go Back</div><div>Close</div></div></div></div>

2. While it is downloading, select the **Copy** button in **section 2 Copy the connection string...**
3. In Chrome, downloads will appear in the bottom left corner of the browser. While it is downloading, it will display a status telling you how long it has left to finish downloading. Once it has finished, click on it to run.
4. On **Windows**, follow the prompts during the installation. MongoDB Compass Community should launch when the installation is complete.

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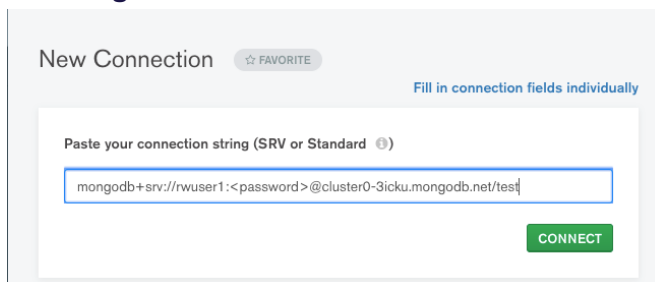


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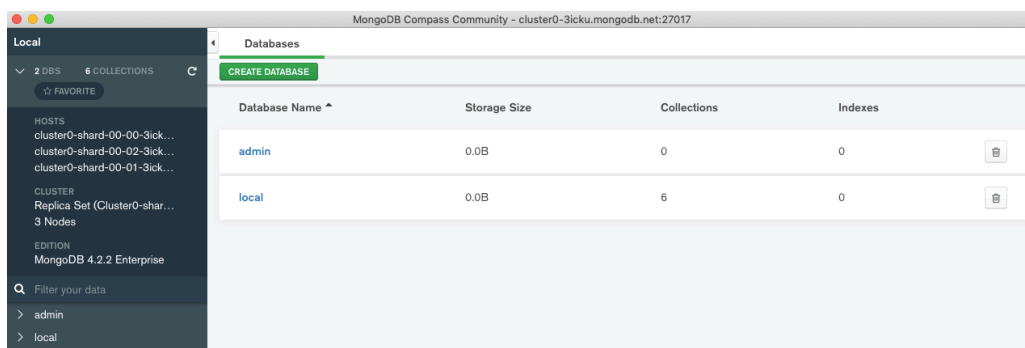
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On **Mac**, install by dragging the **MongoDB Compass Community** icon onto the Applications folder icon. Once complete, you can then launch MongoDB Compass Community from your Applications folder or in Launchpad.

5. Paste the connection string you copied into the connection string field. Replace **<password>** in the connection string you just pasted with the password you set when creating the **rwuser1** ID above. Select **CONNECT**.  
If you are prompted with a License Agreement, scroll down on the License Agreement and select **Agree**:



6. You should successfully connect. From the Menu bar, select **Connect**, and then **Disconnect**. Close MongoDB Compass Community. Sign out and close your MongoDB Atlas session in the browser.



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### Part 3: Install Node.js

Node.js is a JavaScript runtime built on Chrome's V8 JavaScript engine. This will also install npm which is a package manager for the JavaScript language.

1. Open your Chrome browser and navigate to [Node.js \(https://nodejs.org/en/\)](https://nodejs.org/en/). Install the most recent version of node that is marked as **"Recommended For Most Users"**.
2. To confirm that everything has installed correctly, open a command prompt or a terminal and run the following command:

```
$ node -v  
v10.16.0
```

### Part 4: Install Visual Studio Code

Visual Studio Code is a source code editor developed by Microsoft that can be run on Windows, macOS, and Linux. It is a free, open-source developer tool.

1. Open your Chrome browser and navigate to [Visual Code Studio \(https://code.visualstudio.com/\)](https://code.visualstudio.com/). Download the stable build for your OS. Click on the download once it completes and follow instructions to install, accepting all defaults.

### Part 5: Create your Development folder

1. Create a folder named "Development" in your user directory (see below for details).

On Windows	On MAC
C:\Users\{username}\Development	/Users/{username}/Development

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