

Introduction to



Hands-On Workshop

Lab 1 - Atlas

Overview

In this lab, you will deploy a MongoDB cluster using **MongoDB Atlas** - MongoDB's cloud-based database-as-a-service.

Prerequisites

To successfully complete this workshop:

- You must be able to make outgoing requests from your computer to MongoDB Atlas servers which will be running on port 27017. Please confirm that port 27017 is not blocked by your network by clicking <http://portquiz.net:27017>. If successful, you will see a page load that indicates you can make outgoing requests on port 27017.
- Privileges to install software on your computer. We will be installing MongoDB Compass in this workshop.

Hands-On Exercises

Exercise 1 - Create the Cluster

Create an Account or Log In to Atlas

We'll be using [MongoDB Atlas](https://cloud.mongodb.com), our fully managed MongoDB-as-a-service, for this workshop. Go to <https://cloud.mongodb.com> and either create a new account or log into an existing account you may have previously created.

Everything you need to build and run applications in the cloud

Get started free

Login

Get started free
No credit card required

Email Address

brian.leonard@mongodb.com

First Name

Brian

Last Name

Leonard

Password

☒ I agree to the [terms of service](#) and [privacy policy](#).

Get started free

Create a Free Tier Cluster

In the opening welcome screen, you will see three separate panels for Starter Clusters, Single-Region Clusters, and Multi-Region Clusters, as well as an option on the bottom-right for “Advanced Configuration Items”. Each of these panels leads to a different set of pre-selected options appropriate for the desired cluster type.

For this workshop, we will be using the free option. In the panel titled “Starter Clusters”, Click **Create a Cluster**.

Starter Clusters

For teams learning MongoDB or developing small applications.

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

Starting at

FREE

Create a cluster




Take a moment to browse the available options (Cloud Provider & Region, Cluster Tier, Additional Settings). Note that this is a restricted set of options, based on our selection of the Free cluster tier.

Return to the Cloud Provider & Region and select your preferred cloud provider (AWS, Google Cloud Platform or Azure). Within your desired provider, select the region closest to you that has

a **FREE TIER AVAILABLE**






Cloud Provider & Region

Azure, Virginia (eastus2) ▼

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
 Virginia (eastus2) ★ FREE TIER AVAILABLE	 Ireland (northeurope) ★ FREE TIER AVAILABLE	 Hong Kong (eastasia) FREE TIER AVAILABLE
 California (westus) ★ FREE TIER AVAILABLE	 Netherlands (westeurope) ★ FREE TIER AVAILABLE	

and set the Cluster Name to **Workshop**:

Cluster Name

Workshop ▼

One time only: once your cluster is created, you won't be able to change its name.

Cluster names can only contain ASCII letters, numbers, and hyphens.

The remaining defaults will suffice.

Click **Create Cluster**:

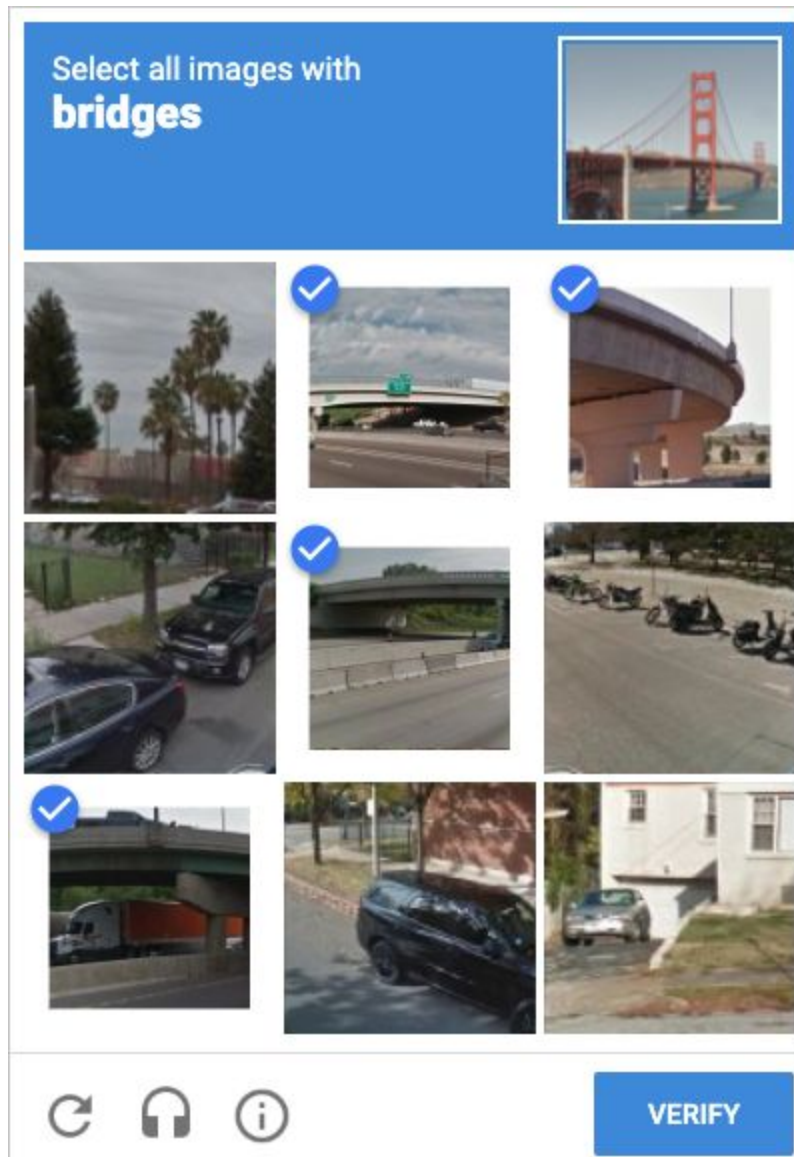
FREE

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

Cancel

Create Cluster

At some point along the way you may be presented with a reCAPTCHA to ensure you're not a bot:



While the cluster is provisioning, let's work through the remaining getting started items:

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

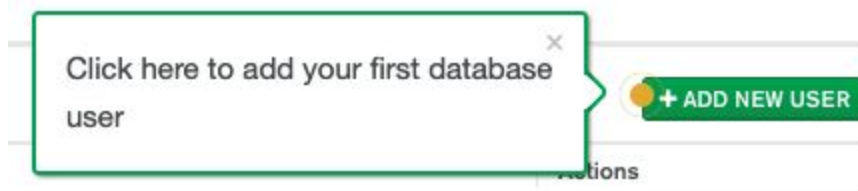
No thanks

Exercise 2 - Create A Database User

All MongoDB Atlas database users must be authenticated. Under Security, select **Database Access**:



Click **Add New User**:



Set the username to **workshop** and the password to **workshop**:

Add New User

Choose Method

PASSWORD

SCRAM Authentication
SCRAM is MongoDB's default authentication method.

workshop
e.g. new-user_31

workshop HIDE

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

Note the powerful role-based access control available. For this workshop, give the user **Atlas admin** privileges.

Click **Add User**.

Exercise 3 - Configure the Firewall

By default, the Atlas database blocks connections from all sources. The next step is to whitelist our network IP address with the cluster's firewall:

Connect to Atlas

Follow this checklist to get started.

40%

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

No thanks

Under Security, select **Network Access**:

SECURITY

Database Access

Network Access

Advanced

User Name

workshop

Click here to manage IP address configuration and VPC peering

And then **Add IP Address**:

Click here to add your first IP address

+ ADD IP ADDRESS

Click **ADD CURRENT IP ADDRESS**, which will auto-detect your network's public IP address. The **Comment** is also important, so we can easily map where the database connections are coming from as the list of whitelisted IP addresses grows:

×

Add Whitelist Entry

Add a whitelist entry using either CIDR notation or a single IP address. [Learn more.](#)

ADD CURRENT IP ADDRESS

ALLOW ACCESS FROM ANYWHERE

Whitelist Entry:

162.204.148.111

Comment:

MongoDB Jacksonville Office

☐ Save as temporary whitelist

Cancel

Confirm

Click **Confirm**.

Exercise 4 - Prepare for the Next Lab

In the next lab, we will be using a desktop tool, called **MongoDB Compass**, as well as a sample dataset. Let's get these items now so that we're ready to go.

First, **download and install Compass**. Go to the [download](#) page and select the latest Version and appropriate Platform:

Note, don't use the Compass download link in Atlas as it downloads the Community Edition of Compass.

Version

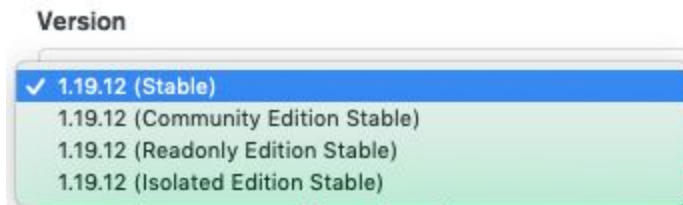
1.19.12 (Stable) ▼

Platforms

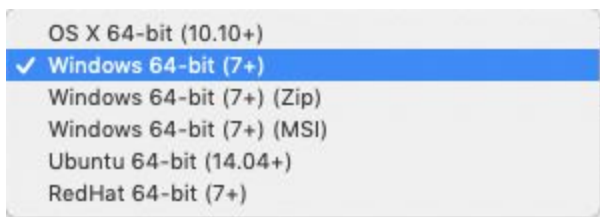
Windows 64-bit (7+) ▼

Download

Make sure you select the “Stable” version, which contains the enterprise features we’ll use in a moment:



Also, if you lack the administrative privileges to install software on your Windows laptop, select the **Windows 64-bit (7+)** option, which is the executable:



Once downloaded, install Compass on your local workstation.

Next, **download the sample dataset** from GitHub. For this workshop, we’re going to load a Yelp-like collection of New York City restaurants. If you have the *wget* utility, you can get the dataset as follows:

```
wget
https://raw.githubusercontent.com/mongodb/docs-assets/primer-dataset/primer-dataset.json
```

Or, more simply:

```
wget http://bit.ly/MongoWorkshopData
```

If you don’t have *wget*, just open the link in your browser **and wait for the page load to complete**. Then save the file (in Chrome, for example, select File > Save Page As).

The dataset is 11.9 MB and has 25K restaurants.

That’s it! You’re all set for the next lab.