Set Up Instructions

Overview

Giving your users the ability to find exactly what they are looking for in your application is critical for a fantastic user experience. Atlas Search makes that easier than ever. In this hands-on coding lab, we will use the $search operator in the MongoDB aggregation pipeline in an application to build fine-grained searches across text, numerics, and geospatial data. Among the many topics we'll cover are:
- Fuzzy Matching
- Autocomplete
- Highlighting
- Facets
- Scoring

Before we can start with the lab, you will need first to set up a MongoDB database cluster in the cloud using MongoDB Atlas. This cluster is easy and free to set up. You don't even need to provide a credit card number. Best part? It is yours to keep forever.

This guide will guide you step-by-step how to create a free Atlas account, create your first database cluster, and download the sample dataset. It will also show you how to get that all important Connection String to the database, so you can CRUD from your applications, the CLI, and MongoDB Compass, our developer GUI. You can also find these instructions in the MongoDB underline documentation.

- Hands-on Tutorial
- Hands-on Tutorial
    - Spinning up an Atlas Cluster and Loading Data
-

Step 1: Stand up infrastructure (MongoDB Atlas, MongoDB Compass)

MongoDB Atlas (DBaaS)

Atlas is a service that provides fully managed MongoDB deployments. If you have an existing MongoDB Cloud account, feel free to use it for this tutorial. The instructions in this section are meant to walk you through the process, starting from scratch.

Navigate to MongoDB Atlas and select 'Try MongoDB Cloud Now', or click on' Login' if you already have an account.

MongoDB Cloud

MongoDB Cloud is the best way to build data-driven applications.

Try MongoDB Cloud Now
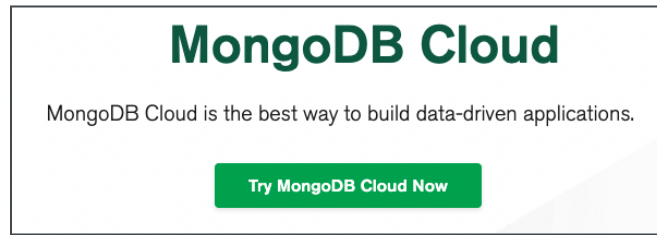
Sign-Up Instructions

If you already have an Atlas account, skip this part and go to "Creating an Organization and Project".
In order to sign-up, fill in your details as shown below and click on 'Get started free'. Alternatively,
you can click on 'Sign up with Google' and use your Google account.

You will then receive an email in your inbox. Navigate to the email and click on 'Verify Email'.
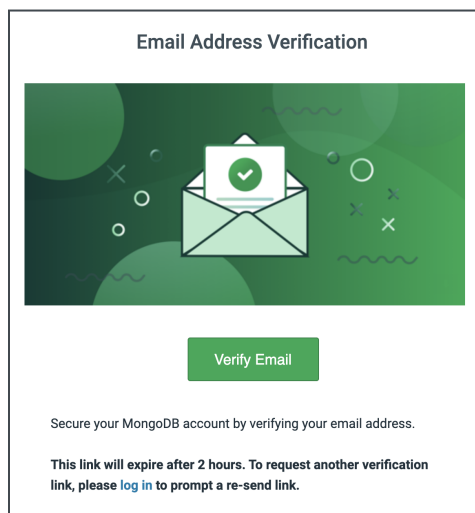
Once you're logged in, you should see the following options. Click on 'Visit MongoDB Atlas' under 'Develop and Deploy'.
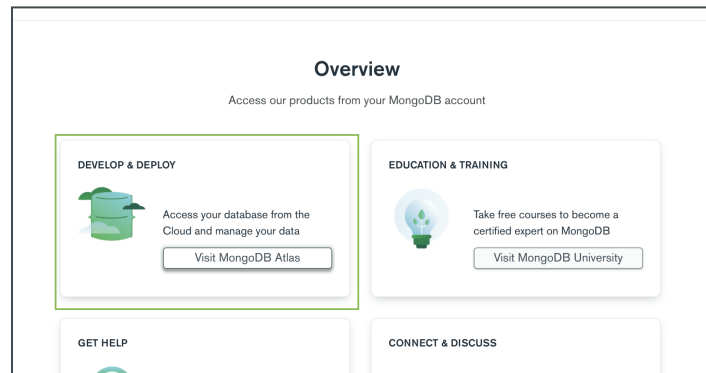
Creating an Organization and Project

Give your organization a name under the 'Name your Organization' field. Note that it can also be changed later.

Select 'MongoDB Atlas' from the two options under 'Select Cloud Service' and click on 'Next'.

You will be then asked to add members to your organization and set their permissions. You will be granted access with the role of 'Organization Owner' by default. Leave the default settings selected and click on 'Create Organization'.

You will then be navigated to the 'Projects' page for the Organization you just created. To create a project, click on 'New Project', on the top right corner of the screen.

Give your project a name by typing it under the 'Name Your Project' field (however, remember that this cannot be changed later!) and click on 'Next'.

You will then be navigated to the 'Add Members' tab for the project you just created. You will automatically be added as a member to this project with the permission of 'Project Owner'. Leave the default settings selected and click on 'Create Project'.

Deploying a Database Cluster

Once you are inside the project you just created, click on 'Build a Database'.

It should take you to the setup wizard. For this tutorial, we will choose the 'Shared' cluster type, which is the free tier of MongoDB Atlas. Once selected, click on 'Create'.

Deploy a cloud database

Experience the best of MongoDB on AWS, Azure, and Google Cloud. Choose a deployment option to get started.

PREVIEW

Serverless

For serverless applications that aren't critical with variable traffic. Minimal configuration required.

✔ Pay only for the operations you run

✔ Resources scale seamlessly to meet your workload

✔ Always-on security and backups

Create

Starting at
$0.30/1M reads

ADVANCED

Dedicated

For production applications with sophisticated workload requirements. Advanced configuration controls.

✔ Network isolation and fine-grained access controls

✔ On-demand performance advice

✔ Multi-region and multi-cloud options available

Create

Starting at
$0.08/hr*
*estimated cost $56.94/month

FREE

Shared

For learning and exploring MongoDB in a cloud environment. Basic configuration options.

✔ No credit card required to start

✔ Explore with sample datasets

✔ Upgrade to dedicated clusters for full functionality

Create

Starting at
FREE

This should then bring you to the setup wizard. Select the cloud provider and region of your choice, and leave the default settings for the rest. If you prefer, you can scroll all the way down and change the cluster name to your liking (remember, this cannot be changed later).

Then, click on 'Create Cluster'.

You will then be navigated to the Security Quickstart wizard.

First, under "How would you like to authenticate your connection?", select the 'Username and Password' option. Enter the Username and Password of your choice (remember to take a note of this!), and click on 'Create User'.

Once this is done, you can then proceed to setting up network access for your database cluster under "Where would you like to connect from?". Select the option 'My Local Environment' and click on 'Add my Current IP Address'.
For the purposes of this tutorial only, you may also add '0.0.0.0/0' under 'IP Address' to allow access to your database from anywhere (remember that this is just for simplicity and is not recommended for the database environments of your actual projects).

Once done, click on 'Finish and Close'.

You should then see your Database Cluster being deployed. This should take around 3-5 minutes.
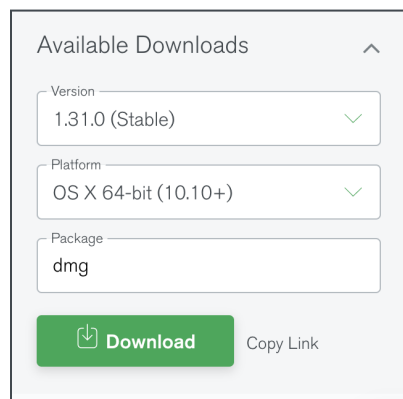
Downloading MongoDB Compass: The GUI for MongoDB [Optional]

MongoDB Compass is a GUI tool which allows you to easily explore and manipulate your database. It is intuitive, flexible and provides features such as detailed schema visualizations, real-time performance metrics, sophisticated querying abilities, and much more.

The use of Compass is optional for this workshop, but it is recommended.

To get started, go to: https://www.mongodb.com/try/download/compass?tck=docs_compass

Select the version and platform (OS) that corresponds to your system, and click on 'Download' (note that the website identifies your system specifications automatically, so you can leave the default options selected).
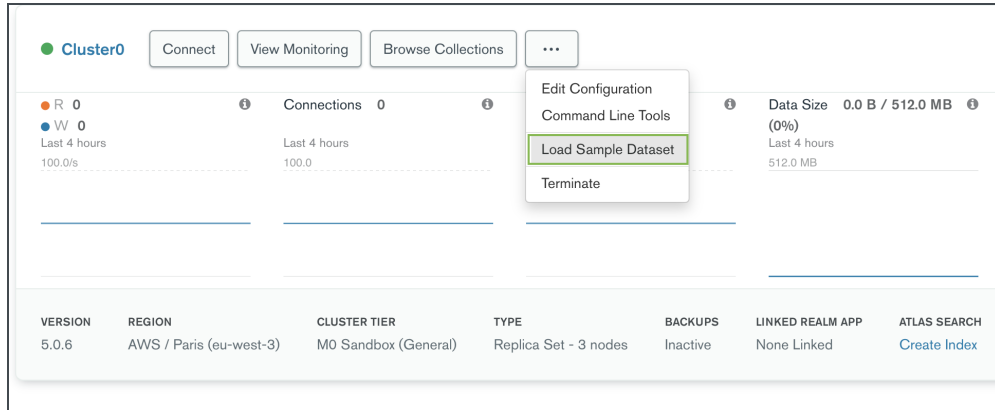

Click on the downloaded file, and follow the setup wizard. For more details on downloading and installing Compass, visit our documentation: https://www.mongodb.com/docs/compass/current/install/ .
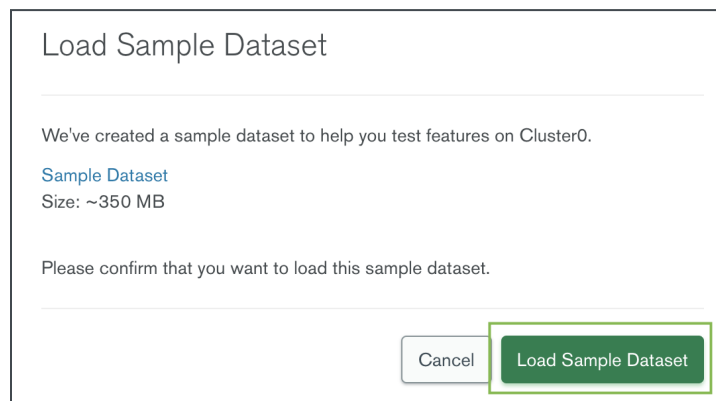
Step 2: Load Sample Data

Atlas has sample data that we're going to leverage for this workshop. Click the [···] button and select 'Load Sample Dataset' from the drop down:
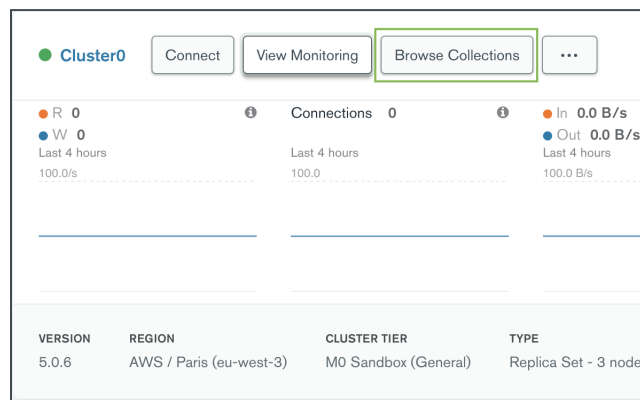
Click on the 'Load Sample Dataset' button when the pop-up window appears. It should take less than 5 minutes to load the dataset into your cluster.
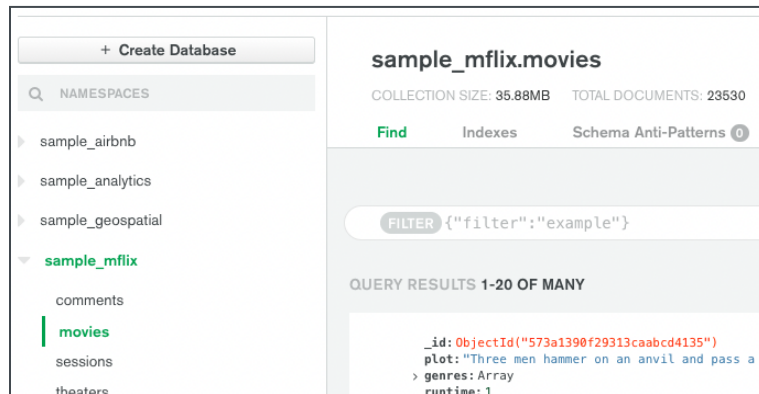

Step 3: Review Movies Collection

Once the data is downloaded, let's have a look at the collections, which you can do by clicking on the 'Browse Collections' button:

For this workshop, we will be using the 'movies' collection in the 'sample_mflix' database. This collection has over 23,000 movies with a variety of text, date, and numeric fields that we can query against.

Connecting to MongoDB Compass [Optional]

If you have MongoDB Compass downloaded, you can use it to explore and manipulate your data instead.

Before we can do that, we need to connect to Compass. Head over to your cluster and click on 'Connect'.
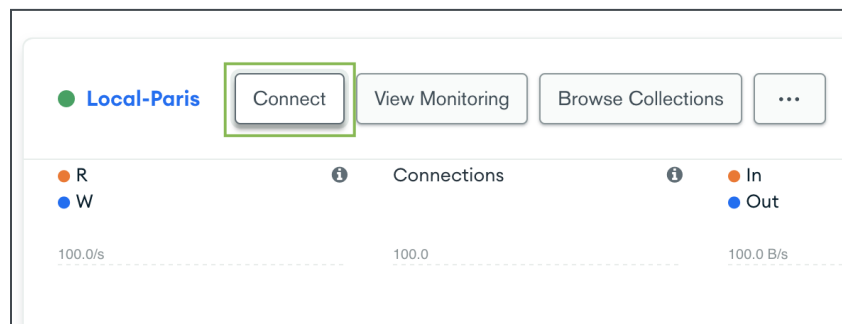
Select 'Connect using MongoDB Compass' from the list.

Select 'I have MongoDB Compass', and click on the [icon] icon in step 2. Make sure to replace <username> and <password> in the connection string with the username and password that you had set up while configuring User Security.

Then, open MongoDB Compass, and click on 'New Connection'. Paste your connection string in the 'URI' field and click on 'Connect'.
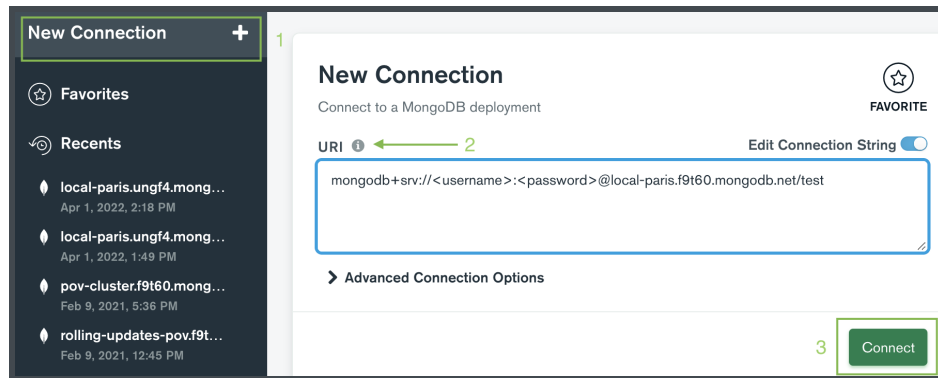
Once connected, you should be able to see your databases and collections, and start exploring them.

For additional information on MongoDB Compass and how to best leverage it, refer to the MongoDB Documentation: https://www.mongodb.com/docs/compass/current/