

# ELEC0136 – DAPS 2023 – Lab 2

Creating a MongoDB Atlas account and setting up connectivity with your Notebook

## Step 1:

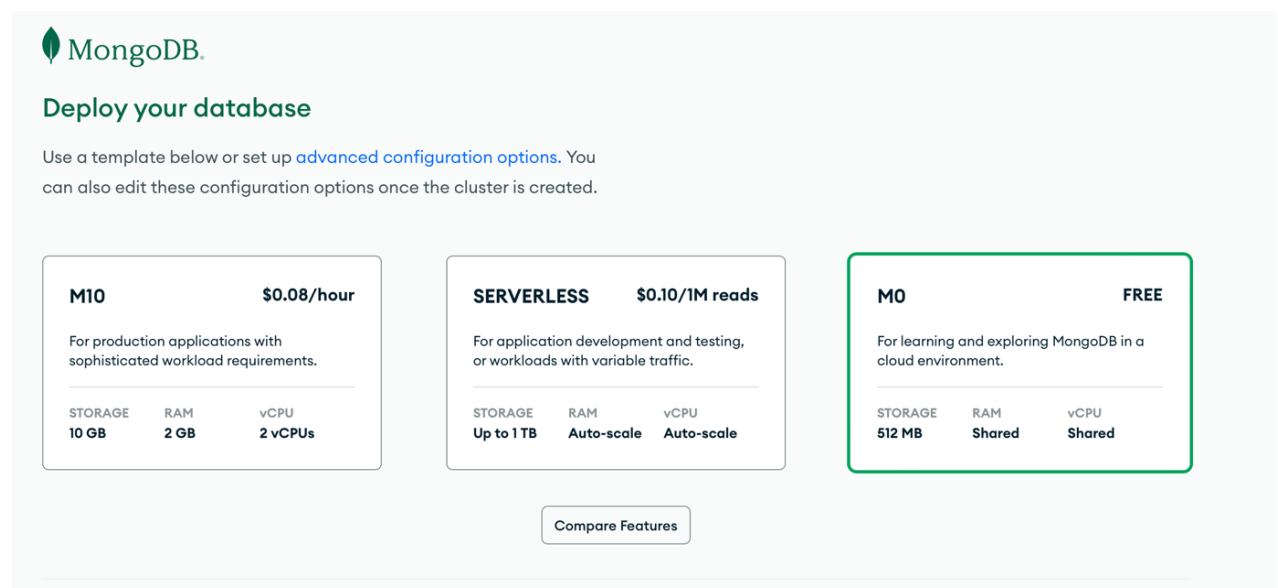
Create an account: <https://account.mongodb.com/account/register?signedOut=true> and sign in using the link you will receive in the confirmation email you will receive from MongoDB.


## Step 2:

Create a new project named DAPS.

## Step 3:

Choose the free M0 option.



 **MongoDB.**

### Deploy your database

Use a template below or set up [advanced configuration options](#). You can also edit these configuration options once the cluster is created.

M10		\$0.08/hour	
For production applications with sophisticated workload requirements.			
STORAGE	RAM	vCPU	
10 GB	2 GB	2 vCPUs	

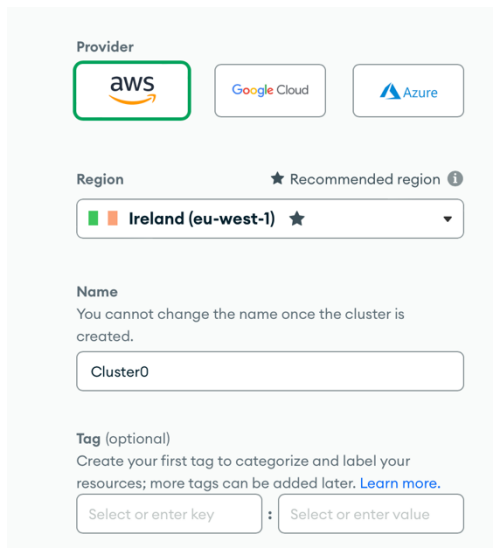
SERVERLESS		\$0.10/1M reads	
For application development and testing, or workloads with variable traffic.			
STORAGE	RAM	vCPU	
Up to 1 TB	Auto-scale	Auto-scale	

M0		FREE	
For learning and exploring MongoDB in a cloud environment.			
STORAGE	RAM	vCPU	
512 MB	Shared	Shared	

[Compare Features](#)

## Step 4:

Choose AWS, Ireland, and name the cluster Cluster0 .




The screenshot shows the 'Provider' selection screen. Under 'Provider', the 'aws' button is highlighted with a green border. Other options are 'Google Cloud' and 'Azure'. Under 'Region', the dropdown menu is open, showing 'Ireland (eu-west-1)' with a star icon and a dropdown arrow. Below this, the 'Name' field is labeled 'Cluster0'. A note states: 'You cannot change the name once the cluster is created.' At the bottom, there is a 'Tag (optional)' section with a note: 'Create your first tag to categorize and label your resources; more tags can be added later. [Learn more.](#)' and two input fields: 'Select or enter key' and 'Select or enter value'.

## Step 5:

Choose Username and Password, then put root as your username and choose a password. YOU WILL NEED THIS PASSWORD LATER.

### 1 How would you like to authenticate your connection?

Your first user will have permission to read and write any data in your project.



The screenshot shows two buttons: 'Username and Password' and 'Certificate'. The 'Username and Password' button is highlighted with a green border.

**i** We autogenerated a username and password for your first database user in this project using your MongoDB Cloud registration information. **x**

Create a database user using a username and password. Users will be given the *read and write to any database* [privilege](#) by default. You can update these permissions and/or create additional users later. Ensure these credentials are different to your MongoDB Cloud username and password.

**Username**

root

**Password** **👁**

password

**🔍 Autogenerate Secure Password**

**📋 Copy**

**Create User**

## Step 6:

Choose My local environment, delete the access to your current IP address, and add access to the address 0.0.0.0/0 (you opening access to any IP address, it is not secure, but simpler for this lab). Press Finish and Close.

Where would you like to connect from?

Enable access for any network(s) that need to read and write data to your cluster.

My Local Environment

Use this to add network IP addresses to the IP Access List. This can be modified at any time.

Cloud Environment

Use this to configure network access between Atlas and your cloud or on-premise environment. Specifically, set up IP Access Lists, Network Peering, and Private Endpoints.

We added your current IP address. You can connect to your cluster locally from this device.

×

Add entries to your IP Access List

Only an IP address you add to your Access List will be able to connect to your project's clusters. You can manage existing IP entries via the [Network Access Page](#).

IP Address	Description
<input type="text" value="Enter IP Address"/>	<input type="text" value="Enter description"/>
<input type="button" value="Add My Current IP Address"/>	
<input type="button" value="Add Entry"/>	

IP Access List	Description
82.132.232.93/32	My IP Address

My Local Environment

Use this to add network IP addresses to the IP Access List. This can be modified at any time.

Cloud Environment

Use this to configure network access between Atlas and your cloud or on-premise environment. Specifically, set up IP Access Lists, Network Peering, and Private Endpoints.

We added your current IP address. You can connect to your cluster locally from this device.

×

Add entries to your IP Access List

Only an IP address you add to your Access List will be able to connect to your project's clusters. You can manage existing IP entries via the [Network Access Page](#).

IP Address	Description
<input type="text" value="Enter IP Address"/>	<input type="text" value="Enter description"/>
<input type="button" value="Add My Current IP Address"/>	
<input type="button" value="Add Entry"/>	

IP Access List	Description
0.0.0.0/0	

Finish and Close

## Step 7:

Click on Connect

## Overview

Database Deployments

+

→

Cluster0

CONNECT

EDIT CONFIGURATION

FREE

SHARED

Add Data

Load Sample Data

Data Modeling Templates

+ Add Tag

## Step 8:

### Choose Drivers (first option)

Connect to Cluster0

1

Set up connection security


2

Choose a connection method

3

Connect


Connect to your application

 Drivers

Access your Atlas data using MongoDB's native drivers (e.g. Node.js, Go, etc.)


>

Access your data through tools

 Compass


Explore, modify, and visualize your data with MongoDB's GUI

>

 Shell


Quickly add & update data using MongoDB's Javascript command-line interface

>

 MongoDB for VS Code

Work with your data in MongoDB directly from your VS Code environment

>

 Atlas SQL

Easily connect SQL tools to Atlas for data analysis and visualization

>

Go Back

Close

## Step 9:

Choose Python as your driver, and make sure to use a version of python that is not higher than the one running on your notebook.

Copy the connection String and use it in section 0.2.2 of your Notebook to establish the connection.

Connect to Cluster0

1

Set up connection security

2

Choose a connection method

3

Connect

Connecting with MongoDB Driver

1. Select your driver and version

We recommend installing and using the latest driver version.

Driver

Version

Python

3.6 or later

2. Install your driver

Run the following on the command line

```
python -m pip install pymongo==3.6
```

[View MongoDB Python Driver installation instructions.](#)

3. Add your connection string into your application code

View full code sample

```
mongodb+srv://root:<password>@cluster0.zjmkrad.mongodb.net/?retryWrites=true&w=majority
```

Replace `<password>` with the password for the `root` user. Ensure any option params are [URL encoded](#).

RESOURCES

Get started with the Python Driver

Access your Database Users

Python Starter Sample App

Troubleshoot Connections