

# Setting up a cluster with MongoDB Atlas

# Clusters



## Create a cluster

Choose your cloud provider, region, and specs.

[Build a Cluster](#)

Once your database is up and running, live migrate an existing MongoDB database into Atlas with our [Live Migration Service](#).

# Deploy your cluster

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**  
  
Dedicated cluster for development environments and low-traffic applications.  

---

STORAGE	RAM	vCPU
10 GB	2 GB	2 vCPUs

☐ **Flex** **From \$0.01/hour**  
Up to \$30/month  
  
For application development and testing, with on-demand burst capacity for unpredictable traffic.  

---

STORAGE	RAM, vCPU	OPS/SEC
5 GB	Shared	0 - 500

☒ **Free**  
  
For learning and exploring MongoDB in a cloud environment.  

---

STORAGE	RAM, vCPU	OPS/SEC
512 MB	Shared	0 - 100

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

## Configurations

### Name

You cannot change the name once the cluster is created.

### Provider



## Quick setup

- ☒ Automate security setup ⓘ
- ☒ Preload sample dataset ⓘ

I'll do this later

Go to Advanced Configuration

Create Deployment

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✓ Sample dataset successfully loaded. Access it in [Collections](#) or by connecting with the MongoDB Shell.

● cs452

Connect

View Monitoring

Browse Collections

...

### Visualize Your Data

Build dashboards and charts, and embed them in your apps with MongoDB Charts.

Dismiss

Explore Charts

● R 0

● W

Last 16 minutes

100.0/s

i

Connections 0

Last 16 minutes

100.0

i

● In 0

● Out

Last 16

100.0 B/s

VERSION

REGION

TYPE

BACKUPS

LINKED APP SERVICES

ATLAS SQL

ATLAS SEARCH

8.0.3

AWS / N. Virginia (us-east-1)

Replica Set - 3 nodes

Inactive

None Linked

[Connect](#)

[Create Index](#)

[+ Add Tag](#)

## Connect to cs452



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

## Connect to cs452



### Connecting with MongoDB Driver

#### 1. Select your driver and version

We recommend installing and using the latest driver version.

**Driver**

**Version**

Python ▼

3.12 or later ▼

#### 2. Install your driver

Run the following on the command line

**Note:** Use appropriate Python 3 executable

```
python -m pip install "pymongo[srv]"
```





### 3. Add your connection string into your application code

Use this connection string in your application

 View full code sample

```
from pymongo.mongo_client import MongoClient
from pymongo.server_api import ServerApi

uri = "mongodb+srv://pjenkins:<db_password>@cs452.jqefd.mongodb.net/?retryWrites=true&w=

# Create a new client and connect to the server
client = MongoClient(uri, server_api=ServerApi('1'))

# Send a ping to confirm a successful connection
try:
    client.admin.command('ping')
    print("Pinged your deployment. You successfully connected to MongoDB!")
except Exception as e:
    print(e)
```

Replace **<db\_password>** with the password for the **pjenkins** database user. Ensure any option params are [URL encoded](#).

# Add Password

The screenshot displays the MongoDB Atlas interface for managing database access. The top navigation bar includes the Atlas logo, a project dropdown (Brigham You...), and links to Access Manager and Billing. The main header shows 'Project 0' and 'Data Services' with a 'Charts' link. The left sidebar contains a navigation menu with categories like Overview, DATABASE, SERVICES, and SECURITY. The 'Database Access' link is highlighted with a red box. The main content area is titled 'Database Access' and shows 'Database Users' and 'Custom Roles' tabs. A table lists the current database users, with one user 'pjenkins' shown. A red box highlights the '+ ADD NEW DATABASE USER' button in the top right. A chatbot window is visible in the bottom right corner.

Atlas Brigham You... Access Manager Billing All Clusters Get Help Porter

Project 0 Data Services Charts

Overview DATABASE Clusters SERVICES Atlas Search Stream Processing Triggers Migration Data Federation Data API SECURITY Quickstart Backup Database Access Network Access Advanced

BRIGHAM YOUNG UNIVERSITY > PROJECT 0

## Database Access

Database Users Custom Roles

User	Description	Authentication Method	MongoDB Roles	Resources	Actions
pjenkins		SCRAM	atlasAdmin@admin	All Resources	<a href="#">EDIT</a> <a href="#">DELETE</a>

+ ADD NEW DATABASE USER

MBot from MongoDB • 101w ago  
👋 Welcome to MongoDB!  
What can I help you with?

I'd like to learn more about pricing



# Network Access

IP Access List

Peering

Private Endpoint

+ADD IP ADDRESS

! You will only be able to connect to your cluster from the following list of IP Addresses:

IP Address	Comment	Status	Actions
73.98.155.88/32	Created as part of the Auto Setup process	● Active	<a href="#">EDIT</a> <a href="#">DELETE</a>
24.10.221.213/32	My house	● Active	<a href="#">EDIT</a> <a href="#">DELETE</a>
0.0.0.0/0 (includes your current IP address)	My IP Address	● Active	<a href="#">EDIT</a> <a href="#">DELETE</a>