

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

10 GB

RAM

2 GB

vCPU

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

5 GB

RAM, vCPU

Shared

OPS/SEC

0 - 500

Free

For learning and exploring MongoDB in a cloud environment.

STORAGE

512 MB

RAM, vCPU

Shared

OPS/SEC

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.

cs452

Quick setup

Automate security setup 

Preload sample dataset 

Provider



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

●

Connections 0

Last 16 minutes

100.0

●

In 0

● Out

Last 16

100.0 B/

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



Choose a connection method



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



Set up connection security



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

Python

Version

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=1"

# 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 shows the MongoDB Atlas interface for managing database access. The left sidebar includes links for Overview, Clusters, SERVICES (Atlas Search, Stream Processing, Triggers, Migration), SECURITY (Quickstart, Backup), and Database Access (which is highlighted with a red box). The main content area is titled "Database Access" and shows the "Database Users" tab selected. A table lists a single user entry: pjenkins (User), SCRAM (Authentication Method), atlasAdmin@admin (MongoDB Roles), and All Resources (Resources). Actions for this user include EDIT and DELETE. A prominent green button at the top right of the table area is labeled "+ ADD NEW DATABASE USER" and is also highlighted with a red box. A small AI chat window in the bottom right corner displays a welcome message from MBot.

User	Description	Authentication Method	MongoDB Roles	Resources	Actions
pjenkins		SCRAM	atlasAdmin@admin	All Resources	<button>EDIT</button> <button>DELETE</button>

+ 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

BRIGHAM YOUNG UNIVERSITY > PROJECT 0

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	EDIT DELETE
24.10.221.213/32	My house	Active	EDIT DELETE
0.0.0.0/0 (includes your current IP address)	My IP Address	Active	EDIT DELETE