



Instructor-led Training for MongoDB Operations

Upskill MongoDB teams to effectively manage MongoDB.

Ramp up your team's MongoDB skills with a comprehensive training program geared towards sizing, deploying, upgrading, managing and tuning MongoDB deployments in a mission-critical environment. Live classes taught by certified instructors ensure your team's learning outcomes are met quickly and reliably, so you can map training to project success.

You can view all available courses at learn.mongodb.com.

Overview

Our graduated, modular curriculum provides courses for a variety of MongoDB skill levels. All classes include labs and workshops in an interactive development environment.

MongoDB Training for Operations

Our 5 foundational courses are the recommended starting point for all operations engineers, covering fundamental MongoDB skills and features with hands-on experiences.

Operations Skill Specialty Courses

Dive deep into specific MongoDB products or critical operations skills with short mastery courses, giving learners an opportunity to learn through targeted workshops.

Get started

We can work with you to develop a customized training plan tailored to your team's skills, project needs, and timelines. You can also enroll learners in an upcoming class on our Public Training schedule.

To see all course logistics and requirements, view the [Learner Guide](#).



Private Training

On-site or remote classrooms for up to 12 learners. Schedule and agenda is flexible to your needs. Minimum 2 consecutive days are required.

Public Training

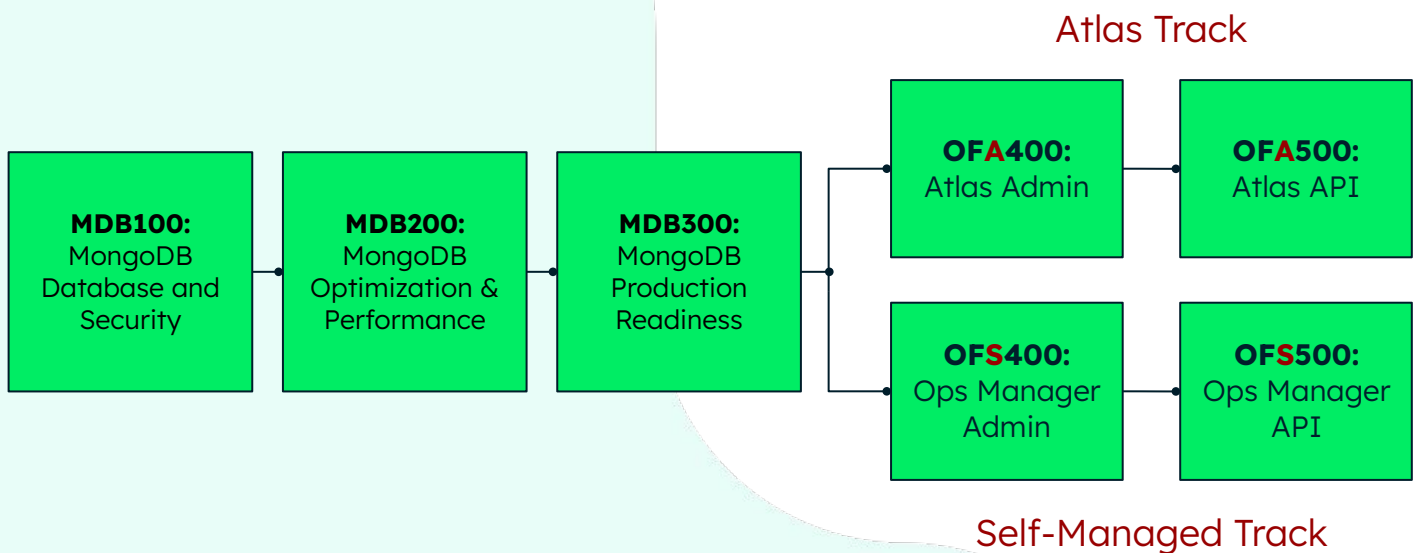
Remote-only classes published on a recurring [schedule](#). Available with an unlimited access annual pass, or on a per-seat basis.

MongoDB Training for Operations

Foundation Training: Overview

Our entry-level operations training course comprises a series of five classroom days. Each day introduces new concepts and skills and builds towards competency in managing mission-critical MongoDB deployments at scale. Training focuses on operations best practices - for uptime, safety and performance - and includes hands-on exercises throughout the course. Days four and five follow two distinct paths for MongoDB Atlas or self-managed MongoDB as students progress to learning management tooling for human and programmatic administration of their MongoDB deployment.

Students are provided with a copy of the training slides and comprehensive lecture notes.



Foundation training can be delivered in sessions of between 2 and 5 consecutive days. Each training day builds on knowledge and skills acquired from the preceding prerequisite days. Students may choose to schedule all five days in a row, or space them out according to their schedule or project timeline.

Each day includes a short, end-of-day student assessment with real-time results provided to students.

MongoDB Training for Operations

| | Core Track | | |
|----------|--|---|--|
| | MDB100: MongoDB Database and Security | MDB200: MongoDB Optimization and Performance | MDB300: MongoDB Production Readiness |
| Audience | Developers, DB Admins / Ops Professionals, & Technical Managers | Developers, DB Admins / Ops Professionals | Developer, DB Admins / Ops Professionals |
| Duration | 1 day | 1 day | 1 day |
| Prereqs | None | MDB100 | MDB100, MDB200 |
| Topics | <ul style="list-style-type: none"> • Intro to MongoDB and Atlas • Storage and Retrieval • Security | <ul style="list-style-type: none"> • Indexing • Profiling • Finding Slow Ops • Logs and Metrics • Atlas Search • Vector Search | <ul style="list-style-type: none"> • Basic Backup Operations • Replication • Sharding |
| Summary | This training day covers in detail what MongoDB is, its strengths and where you should use it, how to get up and running with Atlas, and the breadth of powerful functionality for storing and retrieving data (CRUD). It also reviews the security aspects of the MongoDB database. | This training day covers the fundamentals of indexing in theory and in practice, how to profile database operations to identify bottlenecks and slow operations, the logs and metrics analysis and how to use atlas search and vector search indexes for advanced queries with text and semantic searches . | This training day covers a set of topics which make the difference between an application being fit for production or not and how to perform backup tasks in the database. What does a developer need to do to ensure their application is highly available and protects data, and to ensure it will scale when required in future? |
| Outcome | On completion of this training day you will have an understanding of what MongoDB is and how it can be a good fit for your development project. You will understand how to create an Atlas cluster and how to perform CRUD operations in the database. This is an ideal training to take prior to the evaluation of MongoDB for use in your project, in order to validate your planned development effort. | On completion of this training day you will know how to avoid common MongoDB mistakes (failing to correctly index queries or leverage database capabilities for computation of data) and design your data access for optimal performance. You will also understand Atlas search and Vector search indexes. This training is a must for any developer writing code which needs to perform quickly and efficiently. | On completion of this training day you will be able to evaluate and make vital deployment decisions required when building business-critical, highly available applications. Lack of developer awareness in these areas frequently leads to severe production deployment gaps cited by MongoDB consultants, resulting in last-minute rework before go-live. Using this knowledge gets you ahead of the game. |

MongoDB Training for Operations

| | Atlas Track | | Self-managed Track | |
|----------|--|---|--|---|
| | Atlas Admin (OFA400) | Atlas API (OFA500) | Ops Manager Admin (OFS400) | Ops Manager API (OFS500) |
| Audience | Database Administrators / Ops Professionals / Developers responsible for Atlas provisioning | Database Administrators / Ops Professionals / DevOps Engineers | Database Administrators / Ops Professionals | Database Administrators / Ops Professionals / DevOps Engineers |
| Duration | 1 day | 1 day | 1 day | 1 day |
| Prereqs | MDB100, MDB200, MDB300 | MDB100, MDB200, MDB300, OFA400 | MDB100, MDB200, MDB300 | MDB100, MDB200, MDB300, OFS400 |
| Topics | <ul style="list-style-type: none"> What is Atlas? Deploying a Cluster Interacting with Data Security Monitoring and Alerting Backups Integrations | <ul style="list-style-type: none"> Intro to Atlas API API Authentication Deploying Clusters Creating Users Monitoring Network Peering LDAP Integration | <ul style="list-style-type: none"> What is Ops Manager? Configuring Agents Automation Security Monitoring and Alerting Backups | <ul style="list-style-type: none"> Introduction to Ops Manager API API Authentication Deploying Clusters Creating Users Monitoring LDAP Integration |
| Summary | This training day introduces MongoDB Atlas specific features and operational considerations. Atlas is a fully-managed global cloud database service running in or across AWS, GCP and Azure clouds. | This training day moves beyond the Atlas GUI - covering how to use the Atlas API to fully automate operational tasks in the database lifecycle and integrate MongoDB Atlas with other enterprise systems. | This training day covers how to deploy, monitor, back up, secure, and scale MongoDB on your own infrastructure using the Ops Manager management platform. | This training day moves beyond the Ops Manager GUI - covering how to use the Ops Manager API to fully automate tasks in the database lifecycle and integrate MongoDB Ops Manager with other enterprise systems. |
| Outcome | On completion of this training day you will know how to deploy and manage clusters in MongoDB Atlas from small development environments to large global clusters with hundreds of nodes. | On completion of this training day you will have all the skills needed to script and automate best practices for managing MongoDB, facilitating the consistent management of larger database estates, and enabling you to integrate MongoDB Atlas with your preferred CI/CD and monitoring platforms. | On completion of this training day you will be confident using Ops Manager to significantly reduce risk and effort involved in managing one or more production MongoDB clusters. | On completion of this training day you will have all the skills needed to script and automate best practices for managing MongoDB, facilitating the consistent management of larger database estates, and enabling you to integrate MongoDB with your preferred CI/CD and monitoring platforms. |

MongoDB Training for Operations

Foundation Training Agenda: Core Track

MDB100: MongoDB Database and Security

Introduction to MongoDB and Atlas

- Why a new database?
- What are documents?
- MongoDB
 - Agility
 - Usability
 - Utility
 - Scalability
- When to use MongoDB
- Comparison with RDBMS
- Common mistakes
- Accessing MongoDB Atlas
- Starting a cluster
- Installing a shell
- Using the web shell
- Connecting to your cluster

Storage and Retrieval

- Bulk versus single writes
- Filtering and projection
- Basic query operators
- Basic update operations
- Expressive updates
- Advanced atomicity models
 - Upsert
 - findOneAndUpdate

Security

- Introduction to keys and PKI
- Authentication models
- Authorization
 - Roles
 - LDAP
- Encryption
 - In flight
 - At rest
 - In use
- Auditing
- Additional security measures

End of day test

MDB200: MongoDB Optimization and Performance

Indexes and Optimization

- What are indexes?
- MongoDB misconceptions
- Single field indexes
- Reading explain plans
- Indexes and performance
 - Limits
 - Best practices
 - Compression
- Multikey indexes
- Compound index design
- Covered queries
- Geospatial indexing
 - 2d indexes
 - Spherical indexes
- TTL indexes
- Atlas Search and Vector Search
- Wildcard indexing
- How indexes are chosen
 - Query planner / Query optimizer
 - Hints and tips

Finding Slow Ops

- Database Profiling
- Finding slow operations
 - Slow query log
 - Enabling the profiler
- Causes of slow operations
- Logs and Metrics

Intro to Atlas Search and Vector Search

- Atlas Search
- Set up Atlas Search Index
- Atlas Vector Search
- Set up Atlas Vector Search Index

End of day test

MDB300: MongoDB Production Readiness

Replication

- Reasons to replicate data
- Components of a replica set
- Drivers and replica sets
- The concept of majority
- Elections simplified
- Failure modes
- Write Concern
- The Majority Commit Point
- Read Concern
- Read Preference

Sharding

- What is sharding?
- Horizontal versus vertical scaling
- When to shard
- Sharding infrastructure
- Shard keys
- How sharding works
 - Reads / Writes / Chunks
- Sharding in slow motion
- Sharding pitfalls
 - A cautionary tale
- Presplitting

Basic Backup Operations

- mongodump and mongorestore
- Using the oplog
- OS level backups

End of day test

** includes hands-on exercise*

MongoDB Training for Operations

Foundation Training Agenda: Atlas Track

OFA400: Atlas Admin

Overview

- MongoDB Cloud
- What is Atlas?
- Atlas vs. self-managed MongoDB
 - key differences
- Atlas Organizations, Teams and Projects

Deploying a Cluster

- Deployment Sizing
- Deployment Options

Security

- Atlas Users
- Database Users
- Network Access Lists
- Integration Options
- VPC peering

Interacting with Data

- Real Time
- Data Explorer

Monitoring and Alerting

- Reading the monitoring metrics
- Setting Alerts
- Logs
- Performance Monitor
- Profiling

Backups

- Atlas Backup Options
- Restoring a Backup

Integrations

- Atlas Data Federation
- Atlas online archive
- Atlas charts

End of day test

OFA500: Atlas API

Overview

- Infrastructure as Code
- REST
- Utilities: curl, jq, bash

API Authentication

- API Keys
- Access List

Clusters

- Listing Clusters
- Deploying Clusters
- Checking Cluster Status

Database Users

- Adding a User
- Listing Users
- Network Access Lists

Monitoring

- Retrieving Slow Query Logs
- Retrieving Live Metrics
- Using Performance Advisor

Maintenance

- Create an index in a rolling fashion

Security

- Enabling LDAP Authentication
- Configuring private networking (VPC peering)

mongocli

- Installing mongocli
- Configuring mongocli
- Creating a cluster

** includes hands-on exercise*

MongoDB Training for Operations

Foundation Training Agenda: Self-managed Track

OFS400: Ops Manager Admin

Overview

- Ops/Cloud Manager
- The MongoDB Platform
- Organizations, Teams and Projects

Agents

- Agent based management
- Deploying Agents
- The agent logs

Monitoring and Alerting

- Reading the Graphs
- Setting alerts
- Logs
- Performance Monitor
- Profiling

Managing Security

- GUI Users
- Database Users
- TLS
- Integration Options

Automation

- Deployment
- Upgrading

Admin

- System Warnings
- Maintenance Windows
- Global and project diagnostics

Backups

- Configuring Backup
- Backing up a cluster
- Restoring a cluster

End of day test

OFS500: Ops Manager API

Overview

- Infrastructure as Code
- REST
- Utilities: curl, jq, bash

API Authentication

- API Keys
- Access List

Clusters

- Listing Clusters
- Deploying Clusters
- Checking Cluster Status

Database Users

- Adding a User
- Listing Users

Monitoring

- Retrieving Slow Query Logs
- Retrieving Live Metrics
- Using Performance Advisor

Maintenance

- Create an index in a rolling fashion

Security

- Enabling LDAP Authentication

mongocli

- Installing mongocli
- Configuring mongocli
- Creating a cluster

** includes hands-on exercise*

MongoDB Training for Operations

Skill Specialty Training: Overview

Classroom training, even with exercises, is no substitute for deep practical experimentation and observation. MongoDB advanced training workshops enable much more in-depth exploration of a topic through a series of technical challenges.

In these workshops students typically investigate and demonstrate the impact made by a change to design or the use of a feature. Students work together, with each other and with the instructor – evolving code, answering questions and discussing the observed behaviors. Students can choose any subset of workshops according to the areas in which they would like to deepen their skills. Workshops can be taken in any order.

Advanced workshops are technically demanding and as a prerequisite require students to have successfully completed the first four days of foundational courses. Workshops are limited to 12 students per class.

DS110:
Atlas Search and Vector search

DS120:
Atlas Data Federation

OA610:
Benchmarking and Capacity Planning

OA620:
Ops Manager Sizing, Installation and
Configuration

OA640:
Atlas Security

All course descriptions and learning outcomes can be found on learn.mongodb.com.



Benchmarking and Capacity Planning

MongoDB Training for Operations: Skill Specialty Course

If you want to provision the right infrastructure for your MongoDB cluster to satisfy your production workload without over-paying for unnecessary resources, it's essential to understand the implications of infrastructure changes for your workload and how to measure what components of your infrastructure are under-, over-, or right-sized. This training workshop will arm you with the skills to determine when adding CPU, RAM, or disk IOPS will be necessary to improve the performance of your workload, and whether you are spending too much on one thing or not enough on another.

Course code: OA610

Duration: 1 day

Intended Audience

This training workshop is intended for operations professionals who have completed foundation training to at least MDB200 (Diagnostics and Performance Tuning) and want to be able to right-size their database infrastructure.

Course Objectives

In this training workshop, you will learn how to:

- simulate client workloads using POCDriver, an open-source MongoDB workload generator
- identify which resource is currently limiting performance
- determine how the performance of common workloads relates to the number of available CPU cores
- quantify the impact of too little RAM and estimate required RAM for your workload
- identify when disk IOPS is a bottleneck and how many is enough
- identify whether a bottleneck is in the database or elsewhere and avoid wasting time looking in the wrong place for a solution



Ops Manager Sizing, Installation and Configuration

MongoDB Training for Operations: Skill Specialty Course

MongoDB Ops Manager is the management platform that makes it easy to deploy, monitor, back up, and scale MongoDB on your own infrastructure.

Ops Manager is a feature-rich, complex software package with various configurations to suit all enterprise environments and production requirements, and is typically sized and installed by a MongoDB consultant. If you wish to learn the skills to install it yourself, this one-day workshop will teach you how to set up the most common configurations with the confidence that your Ops Manager deployment is ready for prime time.

Course code: OA620

Duration: 1 day

Intended Audience

This training workshop is intended for operations teams who have completed OFS400 (Ops Manager Admin) and are responsible for installing Ops Manager in their organization.

Course Objectives

In this training workshop, you will learn how to:

- select appropriately-sized hardware for your Ops Manager installation
- install and configuring a backing database for the Ops Manager application
- install and configuring the Ops Manager application
- enable high-availability for your Ops Manager application
- secure your Ops Manager installation using HTTPS
- integrate your Ops Manager deployment with LDAP for user authentication
- configure a backup capability in Ops Manager and installing the required backing data stores
- configure Ops Manager for fully isolated operation for environments with no internet access



Atlas Security

MongoDB Training for Operations: Skill Specialty Course

Your Atlas cluster is secure by default but as a MongoDB Atlas Administrator, you will be expected to configure additional security measures specific to your business requirements. You will also be required to reliably and consistently provision MongoDB Atlas Clusters with additional security pre-configured.

This course reviews and expands on the various MongoDB Atlas security features, and teaches you how to use the Hashicorp Terraform MongoDB Atlas Provider to enable consistent provisioning of secure MongoDB Atlas environments through automated tooling.

Course code: OA640

Duration: 1 day

Intended Audience

This training workshop is intended for Database & System Admins, Platform Engineers, and SREs who will install, configure and maintain Atlas instances and clusters. Students should have completed the Atlas Admin (OFA400) and Atlas API (OFA500) courses prior to attending this workshop.

Course Objectives

In this training workshop, you will learn how to:

- use Terraform to provision and configure MongoDB Atlas clusters
- provision multi-region and multi-cloud MongoDB Atlas clusters
- configure Network Peering and Private Endpoints for enhanced Network Security
- prepare for Disaster Recovery and Business Continuity
- prevent data leakage by disabling access to specific MongoDB Atlas tools
- configure Encryption-at-Rest
- configure Auditing for data and control plane activities
- back up data on demand and on schedule, restore data to a point-in-time, and simulate cluster outages



MongoDB Atlas Search and Vector Search

MongoDB Training for Operations: Skill Specialty Course

[MongoDB Atlas Search](#) makes it easy for developers to build fast, relevant, full-text search on top of data in MongoDB Atlas.

[MongoDB Atlas Vector Search](#) allows you to integrate your operational database and vector search in a single fully managed platform that can leverage large language models (LLMs) through popular frameworks.

In this course, students are introduced to Atlas Search and Atlas Vector Search and learn everything they need to know to implement and optimize relevance-based and semantic search functionality for applications built with MongoDB Atlas.

Course code: DS110

Duration: 1 day

Intended Audience

This training is intended for developers who have completed MDB100 & MDB200 and can perform basic MongoDB queries already, as well as architects looking to assess the capabilities of Atlas Search and Atlas Vector Search.

This course is taught using both the Atlas GUI and the MongoDB shell to demonstrate the required API calls.

Course Objectives

In this specialty course, you will learn how to:

- Identify appropriate use cases for Atlas Search
- Design and implement Atlas Search indexes
- Query Atlas Search and tune your queries to adjust result ranking
- Augment search results with scores and highlighting
- Implement synonym tables for context-sensitive matching
- Determine what instance size is required for your search capabilities
- Define Atlas Vector Search indexes and how to use the semantic search
- Use dedicated vector search nodes in their Atlas deployment



MongoDB Atlas Data Federation

MongoDB Training for Operations: Skill Specialty Course

[MongoDB Atlas Data Lake](#) allows developers to natively query and combine data across MongoDB Atlas databases and AWS S3 without complex integrations. In this specialty training course, students will learn everything they need to know to successfully implement Atlas Data Lake and to begin working with their data.

Course code: DS120

Duration: 1 day

Intended Audience

This training is intended for developers who have a solid grounding in the MongoDB Query API attained through completion of MDB100 and MDB200, have basic familiarity with MongoDB Atlas, and are looking for an easy way to query, transform and seamlessly combine data across AWS S3 and MongoDB Atlas databases.

Course Objectives

In this specialty course, you will learn how to use Atlas Data Lake successfully by:

- Learning what Atlas Data Lake is and what problems it addresses
- Deploying an Atlas Data Lake and populating it with data
- Querying and manipulating data in your data lake using the MongoDB Query API, including federated queries across AWS S3 and Atlas databases
- Transferring data between Atlas databases and S3 using Atlas Data Lake specific aggregation operators
- Pre-processing data using scheduled triggers
- Using MongoDB Charts to visualize data in Atlas Data Lake
- Administering Atlas Data Lake using GUI and command-line interfaces