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.

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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	• Intro to MongoDB and Atlas • Storage and Retrieval • Security	• Indexing • Profiling • Finding Slow Ops • Logs and Metrics • Atlas Search • Vector Search	• 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.

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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***

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