KOENIG SOLUTIONS · COURSE OUTLINE

Administering MongoDB On-Premise

Learn to install, secure, monitor and maintain MongoDB on-premise, covering replication, sharding, backups and troubleshooting.

3 Days	9	34	9
24 HOURS	MODULES	TOPICS	HANDS-ON ACTIVITIES

COURSE OVERVIEW

This 3-day course teaches database administrators and IT professionals how to install, manage, secure, and maintain MongoDB in on-premise setups. It covers core tasks like setup, replication, basic scaling, monitoring, and backups through simple explanations and guided hands-on labs. Ideal for those transitioning from relational databases, with no prior MongoDB experience required.

WHO THIS COURSE IS FOR

- **Database Administrators**
- **IT Professionals**
- **System Administrators**
- **Database Developers**

PREREQUISITES

- Basic Linux/Unix command-line skills
- Familiarity with databases (e.g., SQL basics)
- General IT knowledge (files, networks)

LEARNING OBJECTIVES

By the end of this course, participants will be able to:

- Install and start MongoDB on a single server
- Set up basic replication for reliability
- Secure MongoDB with users and passwords
- Monitor health and fix simple issues
- Perform backups and restores
- Scale with basic sharding

COURSE SYLLABUS

9 Modules, 34 Topics

DAY 1 Getting Started with MongoDB Basics

01 MongoDB Overview

Hands-on

TOPICS

- What is MongoDB? Documents vs. tables
- **Key parts:** mongod server and mongo shell
- **Simple data storage:** Collections and JSON-like documents

02 Installation and Setup

Hands-on

TOPICS

Downloading and installing on Linux/Windows · **Basic config file:** Ports, data paths, logs · Starting/stopping MongoDB as a service · Verifying installation

03 Basic Data Management

Hands-on

TOPICS

- **Using mongo shell:** Insert, find, update, delete
- Creating/deleting databases and collections
- Simple import/export with mongoimport

DAY 2 Reliability and Security

04 Replica Sets for Backup Servers

Hands-on

TOPICS

- What is a replica set? Primary and secondary roles
- Setting up a simple 3-node replica set
- Testing automatic failover
- Reading from secondaries

05 Hands-on

Introduction to Sharding

TOPICS

Why shard? Splitting data across servers · **Basic sharded setup:** One shard and mongos · Choosing a shard key · Checking data balance

06 Hands-on

Securing Your Deployment

TOPICS

Enabling authentication · Creating admin users and roles · Basic TLS setup for connections · Common security checks

DAY 3 Monitoring, Maintenance, and Recovery

07 Hands-on

Monitoring Basics

TOPICS

- **Tools:** mongostat, mongotop, and logs
- **Checking server health:** CPU, memory, connections
- Finding slow queries
- Simple alerts

08 Hands-on

Backups and Restores

TOPICS

Easy backups: mongodump and mongorestore · File system snapshots · Restoring to a point in time · Testing recovery

09 Hands-on

Daily Admin Tasks and Troubleshooting

TOPICS

Common fixes: Restarting, checking disk space · Indexing basics for speed · Updating MongoDB safely · Best practices recap

HANDS-ON ACTIVITIES

Practise What You Learn

#	MODULE	ACTIVITY
01	**MongoDB Overview**	Explore sample data
02	**Installation and Setup**	Install on a local machine
03	**Basic Data Management**	Load and query sample data
04	**Replica Sets for Backup Servers**	Build and test a replica set
05	**Introduction to Sharding**	Simple sharded cluster demo

#	MODULE	ACTIVITY
06	**Securing Your Deployment**	Add users and lock down access
07	**Monitoring Basics**	Monitor a running instance
08	**Backups and Restores**	Backup and restore lab
09	**Daily Admin Tasks and Troubleshooting**	Troubleshoot scenarios

WHAT IS INCLUDED

Everything You Need to Succeed

- Koenig course material for every module
- Delivery by certified instructors and subject matter experts
- Hands-on exercises throughout the course
- Course completion certificate from Koenig

ABOUT KOENIG

Who We Are

Established in 1993, Koenig Solutions is a globally recognised training provider with 35+ technology partnerships, 5,000+ training programmes and a network of certified instructors and subject matter experts, supporting individuals and enterprise teams worldwide.

FLEXIBLE DELIVERY

Learn the Way That Suits You

Classroom Training | Live Online Classes (ILO) | Fly-Me-A-Trainer (FMAT) | Flexi (Self-Paced) | 1-on-1 Training

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