

Kafka by Confluent - Apache Kafka Administration by Confluent

Code:	AK-ADMIN
Length:	3 days
URL:	View Online

In this three-day hands-on, Apache Kafka administration training course, you will learn to build and manage Kafka clusters using industry best practices developed by the world's foremost Apache Kafka experts. You will learn how Kafka and the Confluent Platform work, their main subsystems, their functions, how they interact, and how to set up, manage, and tune your cluster.

Who Can Benefit

This course is designed for engineers, system administrators, and operations staff responsible for building, managing, monitoring, and tuning Kafka clusters.

Prerequisites

Attendees should have a working knowledge of the Kafka architecture, either from prior experience or the recommended prerequisite course Confluent Fundamentals for Apache Kafka®. It is also important to have strong knowledge of Linux/Unix and understand basic TCP/IP networking concepts. Familiarity with the Java Virtual Machine (JVM) is helpful.

Course Details

Hands-on Training

Throughout the course, hands-on exercises reinforce the topics being discussed. Exercises include:

- Using Kafka's command-line tools
- Automating configuration
- Using Kafka's administrative tools
- Tuning Producer and Consumer performance
- Securing the cluster
- Building data pipelines with Kafka Connect

Course Outline

Fundamentals of Apache Kafka

- Kafka as a Distributed Streaming Platform
- The Distributed Log

- Producer and Consumer Basics

Apache Kafka Architecture

- Kafka's Commit Log
- Replication for High Availability
- Partitions and Consumer Groups for Scalability
- Security Overview

Providing Durability

- Data Replication
- Failure Recovery
- Log Files & Offset Management
- Exactly-Once Semantics (EOS)

Managing a Cluster

- Installing and Running Kafka
- Configuration Management
- Monitoring
- Log Retention and Compaction
- Commissioning and Decommissioning Brokers

Optimizing Apache Kafka Performance

- Monitoring, Testing, and Tuning Brokers and Kafka Clients
- The Consumer Group Protocol

Apache Kafka Security

- Transport Encryption
- Authentication
- Securing Apache Kafka
- Migrating to a Secure Cluster

Data Pipelines with Kafka Connect

- The Motivation for Kafka Connect
- Types of Connectors
- Kafka Connect Implementation
- Standalone and Distributed Modes
- Configuring the Connectors

Kafka in Production

- Kafka Reference Architecture for Apache Kafka and the Complete Confluent Platform

- Capacity Planning
- Multi Data Center Deployments

Schedule (as of 4)

Date	Location
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