TRAINING COURSE

Confluent Fundamentals for Apache Kafka®

Course Objectives

During this training you will:

- Gain an understanding of Apache Kafka® and the Confluent Platform
- Explore use cases
- Receive an overview of Kafka's core concepts that enable it to power a highly scalable, highly available and resilient real-time event streaming platform
- Be introduced to the Confluent Platform, offering an enterprise-ready, real-time event streaming platform powered by Apache Kafka®
- Begin preparation to attend Apache Kafka® Administration by Confluent and/or the Confluent Developer Skills for Building Apache Kafka® training courses.

Hands-on Training

Our Self Paced Subscription customers enjoy the additional perk of hands-on training, to help reinforce the concepts being taught.

Exercises include:

- Launching and exploring a minimal Kafka cluster
- Using Kafka command line tools to explore cluster meta data in ZooKeeper, create topics on the cluster, and publish & consume messages
- Running a Java based consumer and observe consumer lag when scaling the consumer
- Configuring Kafka Connect with a MQTT Connector source to create a data pipeline
- Using Confluent Control Center to monitor your cluster and execute ksqlDB queries.

Prerequisites

Attendees are not expected to have any prior experience with Kafka. Some basic understanding of the Linux OS and experience in using a shell like Bash is beneficial.

This course is a recommended prerequisite for students attending Apache Kafka® Administration by Confluent and/or the Confluent Developer Skills for Building Apache Kafka® training courses.

Participants are required to provide a laptop computer with unobstructed internet access to fully participate in the class.

To sign-up for one of our courses, visit us here.

Who Should Attend?

This course is designed for all professionals who work with a real-time event streaming platform powered by Apache Kafka®.

Content

MODULE	DESCRIPTION
Motivation and Customer Use Cases	• Motivation for a paradigm change to "Event-driven" • How Kafka is the backbone of real-time event streaming • How other major players in the market use Kafka • Customer Use Cases - Microservices, IoT and Edge Computing - Core Banking, payments engine and fraud detection - Cyber Data Collection and Dissemination - ESB Replacement - Data Pipelining - eCommerce and Customer 360 - Mainframe offloading
Apache Kafka® Fundamentals	• Architecture • ZooKeeper's role • Topics, Partitions and Segments • The commit log and streams • Brokers and Broker replication • Producers Basics • Consumers, Consumer groups and Offsets
How Kafka Works	• High-level code overview for a basic producer and a basic consumer • High Availability through Replication • Data Retention Policies • Producer Design and Producer Guarantees • Delivery Guarantees, including Exactly Once Semantic • Partition strategies • Consumer group rebalances • Compacted Topics • Troubleshooting strategies • Security overview
Integrating Kafka into your Environment	• Get streams of data into and out of Kafka with Kafka Connect and REST Proxy • Maintain data formats and ensure compatibility with Schema Registry and Avro • Build real-time streaming applications with Confluent ksqlDB & Kafka Streams
The Confluent Platform	• The Streaming Platform as the Central Nervous System • Deployment Models — on premise versus SaaS • The Confluent Control Center • Role Based Access Control (RBAC) • The Confluent CLI • Confluent Operator • The Confluent Hub for Certified Connectors

Confluent offers instructor-led courses in both traditional and virtual classroom formats, as well as in a self-paced format available through the Confluent Self-Paced Subscription. Visit confluent.io/training for more information.

Disclaimer: Subscriptions purchased with Training Credits will have an end date matching the Training Credits order.