

Apache Kafka Rapid-Track course using Python

Prerequisites: Intermediate knowledge of Python

Duration: 3 Days (8 Hrs/Day)

Course Objective: In this fast-track course, you'll gain essential skills in Kafka's core architecture, APIs, and operations. Through intensive labs, learn to set up, design, and manage Kafka systems efficiently. Equip yourself to handle real-time data streaming and processing at scale. This course is your express route to becoming a Kafka expert, ready to tackle challenges in the tech industry with confidence and expertise.

Lab Requirement: Koenig DC/linux.

Module 1 - Introduction to Apache Kafka

Events and event streaming

Brokers

Topics

Producers

Consumers

Partitions

Replication

Kafka Connect

Kafka Streams

Module 2 - Kafka APIs

Producer API

Consumer API

Admin Client API

Connect API

Kafka Streams API

Module 3 - Getting started with Apache Kafka

Lab: Setup project

Lab: Kafka Setup

Lab: Create topic

Lab: Build producer

Lab: Build consumer



Lab: Producer events

Lab: Consume events

Module 4 - Kafka Design

Kafka and File System

Batch Processing for Efficiency

Kafka Producer Design

Kafka Consumer Design: Consumers, Consumer Groups, and Offsets

Message Delivery Guarantees

Log Compaction

Kafka Quotas

Module 5 - Kafka Tools and operations

Kafka Command-Line Interface (CLI) Tools

Lab: How to use Kafka Command-Line Interface (CLI) Tools

Lab: Topic Operations

Lab: Choose and Change the Partition Count

Lab: View Consumer Group Info