

# Apache Kafka Fundamentals

## Student-ready learning path and practical course outline

A practical, student-friendly outline covering overview of Apache Kafka and Common Use Cases, kafka Core Concepts, and installing and Deploying Kafka.

### MODULES

3

### LESSONS

26

### FORMAT

Self-paced

## Module Breakdown

### MODULE 1

#### Overview of Apache Kafka and Common Use Cases

- 1.1 Overview and Common Use Cases
- 1.2 What is Kafka
- 1.3 Kafka History
- 1.4 Kafka Use Cases
- 1.5 Kafka APIs
- 1.6 Kafka Pub Sub Patterns
- 1.7 Whiteboard Discussion- Use Case

### MODULE 2

#### Kafka Core Concepts

- 2.1 Kafka Core Concepts
- 2.2 The Importance of Event Data Streams
- 2.3 Kafka Messaging, Topics, Partitions and Segments
- 2.4 Whiteboard - Kafka Components
- 2.5 Whiteboard - Brokers and Clusters
- 2.6 Kafka Streams and Patterns
- 2.7 Whiteboard - Zookeeper and Kraft
- 2.8 Demonstration - Kafka Connect
- 2.9 Whiteboard- - Architecture Deep Dive
- 2.10 Whiteboard - Kafka Design Patterns

### MODULE 3

#### Installing and Deploying Kafka

- 3.1 Installing and Deploying Kafka
- 3.2 Demonstration - Kafka Resources and Licensing
- 3.3 Demonstration - Kafka Installation Options, Considerations and Requirements
- 3.4 Demonstration - Deployment and Environment
- 3.5 Demonstration - Starting Kafka
- 3.6 Demonstration - Terminating Kafka Environment
- 3.7 Whiteboard - Connections and Processing Events
- 3.8 Additional Resources
- 3.9 Putting it all together - Course Review