

## Kafka Course Content

### What is Kafka – An Introduction –

Understanding what is Apache Kafka, the various components and use cases of Kafka, implementing Kafka on a single node.

### Multi Broker Kafka Implementation –

Learning about the Kafka terminology, deploying single node Kafka with independent Zookeeper, adding replication in Kafka, working with Partitioning and Brokers, understanding Kafka consumers, the Kafka Writes terminology, various failure handling scenarios in Kafka.

### Multi Node Cluster Setup –

Introduction to multi node cluster setup in Kafka, the various administration commands, leadership balancing and partition rebalancing, graceful shutdown of kafka Brokers and tasks, working with the Partition Reassignment Tool, cluster expanding, assigning Custom Partition, removing of a Broker and improving Replication Factor of Partitions.

### Integrate Flume with Kafka –

Understanding the need for Kafka Integration, successfully integrating it with Apache Flume, steps in integration of Flume with Kafka as a Source.

### Kafka API –

Detailed understanding of the Kafka and Flume Integration, deploying Kafka as a Sink and as a Channel, introduction to PyKafka API and setting up the PyKafka Environment.

### Producers & Consumers –

Connecting Kafka using PyKafka, writing your own Kafka Producers and Consumers, writing a random JSON Producer, writing a Consumer to read the messages from a topic, writing and working with a File Reader Producer, writing a Consumer to store topics data into a file.