

Confluent Kafka

Course Content:

Pre-requisites:

- Good knowledge on Linux Operating system
- Basic knowledge on how a messaging product works

Target Audience:

- People who are working professional and looking for a change to boost career with bigdata injection tools

Module-1: Introduction to Kafka

- What is Kafka
- Kafka Features and terminologies
- High-level kafka architecture

- Real-life Kafka Case Studies

Module-2: Kafka components– Theory

- Broker
- Zookeeper
- Topics
- Partition
- Replication
- Producer
- Consumer

Module-3: Confluent Kafka single-node

Installation (as a systemd unit in kraft mode)

- Linux Environment setup and Pre-requisites
- Code download (Confluent community)
- Single broker installation
 - Kafka broker and controller configuration and setup

Module 4: Kafka Administration (Using

Command Line Interface (CLI))

- Topics
 - Replication factor
 - Partitions

- Console Producer
- Console Consumer
- Console Consumer Groups
- Reset the offsets of a topic for a consumer group

Module 5: Kafka Administration (using GUI Tools)

- Offset Explorer (Kafka Tools)

Module 6: Kafka topic partition reassignment

- Setup a two brokers kafka cluster
- Topic partition re-assignment

Module 7: Kafka Configurations

i. Broker level configurations:

- log.retention.hours
- message.max.bytes
- auto.create.topics.enable

ii. Topics configuration:

- Changing a topic configuration
- Retention time
- Retention bytes
- Min.insync.replicas

- Log Cleanup policies
 - Delete
 - Compact

Module 8: Kafka - Connect

- Use of kafka – connect
- Building a connector file with a simple json file
- File stream source connector setup in distribution mode
- Kafka connector status, start, stop, pause and resume scenarios

Module 9: Schema - Registry

- Use of Schema – Registry in kafka
- Building a Schema in avro using avrc file
- kafka-avro-console-producer use case
- kafka-avro-console-consumer use case

Module 10: Kafka Rest Proxy

- Understanding REST Proxy
- Configuring and spinning up a REST Proxy
- Kafka topic end points with REST Proxy

Module 11: Kafka SSL Security

- Encryption - SSL/TLS - setup
- Authentication
- Authorization (ACL)

Module 12: Confluent Kafka Multinode-node Installation (as a systemd unit)

- Linux Environment setup and Pre-requisites
- Code download (Confluent community)
- Single broker installation
 - Zookeeper configuration and setup
 - Kafka server configuration and setup



For More : <https://acquiescent.in>