KSQL on ksqlDB for Stream Processing

Prerequisites: Basic knowledge of Kafka

Duration: 2 Day (8 Hrs./Day)

Course Objective: This comprehensive two-day course is designed to provide participants with a deep understanding of ksqlDB and KSQL, from basic concepts to production-level deployment. By the end of the course, participants will be able to set up ksqlDB, create and manipulate streams and tables, perform complex queries, and deploy ksqlDB applications in a production environment.

Apache Kafka version: Latest.

Lab Requirement: Koenig DC/Linux (CentOS 9) (customizable).

Module 1 - ksqlDB and KSQL Basics

Lab: KSQL Setup

Lab: Our first KSQL Stream

Lab: Create a Stream with JSON

Lab: KSQL Datagen - Generating Streams

Lab: Manipulate a Stream

Lab: Streams from streams and functions

Lab: ksqlDB Tables

Module 2 - ksqlDB and KSQL Intermediate

Lab: KSQL Joins

Lab: Pull Queries

Lab: Kafka Connect with ksqlDB

Lab: Data Encodings

Lab: CSV Delimited Data

Lab: JSON Data

Lab: Avro Data

Lab: Avro Schema Evolution

Lab: Nested JSON

Lab: Build a rekeyed table

Lab: Repartition a Stream

Lab: Merging Streams

Lab: Windowing

Lab: Geospatial

Lab: Extending KSOL- UDF / UDAF

Lab: using the UDF / UDAF

Module 3 - ksqlDB and KSQL in production

Lab: Moving to Productions-Headless for KSOL

Lab: Scaling and Load Balancing

Lab: Configuration Settings

Lab: State Stores

Lab: Testing ksqlDB applications