

Szkolenie: Cloudera

## Cloudera Streaming Analytics: Using Apache Flink and SQL Stream Builder on CDP

**CLOUDERA**  
Training Partner

### DOSTĘPNE TERMINY

2024-05-27 | 2 dni | Virtual Classroom

2024-09-30 | 2 dni | Virtual Classroom

### Cel szkolenia:

During this two-day instructor-led training course, participants will learn development and operations for Cloudera Streaming Analytics, a framework for low-latency processing and analytics powered by Apache Flink and Cloudera's innovative SQL Stream Builder.

Through extensive hands-on exercises, students will gain experience deploying and managing a Flink cluster, developing and running Flink applications, and using SQL Stream Builder's continuous SQL to perform analytics on streaming data.

During this course, you learn how to:

- Deploy a Flink cluster using Cloudera Manager
- Develop Flink batch and streaming applications
- Run and view Flink jobs
- Transform data streams
- Use watermarks and windows to analyze streaming data
- Analyze data with Cloudera SQL Stream Builder
- Monitor Flink application metrics

### Plan szkolenia:

- **Overview**
  - Introduction to Apache Flink and Stream Processing
  - Typical Use Cases
  - Related Products
- **Service Deployment**
  - Planning Requirements
  - Installation
  - Flink Dashboard

- Exercise: Running a Flink Program
- **Flink Basics**
  - Execution Environment
  - Flink Application Structure
  - Create a Flink Project
  - Build a Flink Program
  - Exercise: Building a Simple Flink Program
- **Architecture**
  - Logical
  - Physical
  - Parallelism
  - Fault Tolerance
  - Data Storage
- **DataStream API**
  - DataStream API Overview
  - Data Types and Serialization
  - Sources and Sinks
  - Transformations
  - Exercise: Batch Processing Using Flink
- **DataStream API (continued)**
  - Exercise: Creating a Flink Streaming Application
  - Using Kafka as a Source and Sink
  - Exercise: Creating a Streaming Application Using a Kafka Source
- **Flink SQL and Table API**
  - Streaming Concepts
  - Programming Options
  - Integrations
  - Exercise: Using Flink SQL and Kafka
- **Stateful Stream Processing**
  - Stateful Streaming Applications
  - Checkpoints
  - Event Time Processing
  - Watermarks
  - Windows
  - Exercise: Tumbling Windows with Event Time
- **Cloudera SQL Stream Builder**

- Overview
- Streaming SQL Console
- Data Providers
- SQL Stream Jobs
- Exercise: Using SQL Stream Builder
- **Monitoring**
  - Metrics
  - Logging
  - Backpressure
  - Resource Configuration
  - Exercise: Monitoring

## Wymagania:

This course is designed for those who have experience with administration and application development on the Cloudera platform. Students must have at least basic familiarity with Java and Linux. Our [Cloudera Training for Apache Kafka](#) course, or equivalent experience with Apache Kafka, is a recommend prerequisite.

## Poziom trudności



## Prowadzący:

Certified Cloudera Instructor.