

# Building Streaming Data Analytics Solutions on AWS – Intensive Training («AWSB08»)

Learn to design and implement streaming data analytics solutions using AWS Services with an expert AWS instructor.

**Duration:** 1 day

**Price:** 900.–

**Course documents:** Digital original AWS courseware

## Content

The course dives deep into Amazon Kinesis and Amazon MSK through a mixture of instructor-led presentations, practice labs, demonstrations, and class exercises so you can walk away understanding how to build a streaming data analytics solution on AWS. You'll also learn how to scale streaming applications using Amazon Kinesis, optimize data storage, how to select and deploy appropriate options to ingest, transform, store, and analyze data, and more.

## Outline

### Module A: Overview of Data Analytics and the Data Pipeline

- Data analytics use cases
- Using the data pipeline for analytics

### Module 1: Using Streaming Services in the Data Analytics Pipeline

- The importance of streaming data analytics
- The streaming data analytics pipeline
- Streaming concepts

### Module 2: Introduction to AWS Streaming Services

- Streaming data services in AWS
- Amazon Kinesis in analytics solutions
- Demo: Explore Amazon Kinesis Data Streams
- Practice Lab: Setting up a streaming delivery pipeline with Amazon Kinesis
- Using Amazon Kinesis Data Analytics
- Introduction to Amazon MSK
- Overview of Spark Streaming

### Module 3: Using Amazon Kinesis for Real-time Data Analytics

- Exploring Amazon Kinesis using a clickstream workload
- Creating Kinesis data and delivery streams
- Demo: Understanding producers and consumers
- Building stream producers
- Building stream consumers
- Building and deploying Flink applications in Kinesis Data Analytics
- Demonstration: Explore Zeppelin notebooks for Kinesis Data Analytics
- Practice Lab: Streaming analytics with Amazon Kinesis Data
- Analytics and Apache Flink

### Module 4: Securing, Monitoring, and Optimizing Amazon Kinesis

- Optimize Amazon Kinesis to gain actionable business insights
- Security and monitoring best practices

### Module 5: Using Amazon MSK in Streaming Data Analytics Solutions

- Use cases for Amazon MSK
- Creating MSK clusters
- Demo: Provisioning an MSK Cluster
- Ingesting data into Amazon MSK
- Practice Lab: Introduction to access control with Amazon MSK
- Transforming and processing in Amazon MSK

### Module 6: Securing, Monitoring, and Optimizing Amazon MSK

- Optimizing Amazon MSK
- Demo: Scaling up Amazon MSK storage
- Practice Lab: Amazon MSK streaming pipeline and application deployment
- Security and monitoring
- Demo: Monitoring an MSK cluster

### Module 7: Designing Streaming Data Analytics Solutions

- Use case review
- Class Exercise: Designing a streaming data analytics workflow

### Module B: Developing Modern Data Architectures on AWS

- Modern data architectures

## Key Learnings

- Understanding the features and benefits of a modern data architecture. Learn how AWS streaming services fit into a modern data architecture.
- Designing and implementing a streaming data analytics solution
- Identifying and applying appropriate techniques, such as compression, sharding, and partitioning, to optimize data storage
- Selecting and deploying appropriate options to ingest, transform, and store real-time and near real-time data
- Choosing the appropriate streams, clusters, topics, scaling approach, and network topology for a particular business use case
- Understanding how data storage and processing affect the analysis and visualization mechanisms needed to gain actionable business insights
- Securing streaming data at rest and in transit
- Monitoring analytics workloads to identify and remediate problems
- Applying cost management best practices

## Target audience

This course is intended for the following job roles:

- Data Analytics

## Requirements

We recommend that attendees of this course have the following prerequisites:

- a minimum one-year experience managing data analytics solutions or streaming data
- and have attended the following course (or have equivalent knowledge):
  - [Architecting on AWS – Intensive Training \(«AWSA01»\)](#)
  - [Building Data Lakes on AWS – Intensive Training \(«AWSB04»\)](#)

## Certification

**IMPORTANT:** This course prepares you for the [AWS Data Analytics Certification](#), among other courses in the *Data Analytics* job role track

## Further courses

- [Authoring Visual Analytics Using Amazon QuickSight – Intensive Training \(«AWSB07»\)](#)

## Any questions?

We are happy to advise you on +41 44 447 21 21 or [info@digicomp.ch](mailto:info@digicomp.ch). You can find detailed information about dates on [www.digicomp.ch/courses-digital-transformation-technologies/cloud/amazon-web-services-aws/aws-data-engineer/course-building-streaming-data-analytics-solutions-on-aws-intensive-training](http://www.digicomp.ch/courses-digital-transformation-technologies/cloud/amazon-web-services-aws/aws-data-engineer/course-building-streaming-data-analytics-solutions-on-aws-intensive-training)