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Sign up

AWS Data Engineer Associate Certification Training

3 days (21 hours)

Overview

AWS Certified Data Engineer – Associate is the AWS certification designed for professionals who design, build, and operate data pipelines in the cloud.

It covers batch and streaming ingestion, transformation, data store management, orchestration, as well as performance and cost optimization, not to mention data security and governance.

Our training enables you to master essential AWS services, adopt the right data architecture patterns (data lake, ELT/ETL, resilient pipelines), and develop the “best answer” reflexes expected on the exam.

Like all our training courses, this one is based on the latest [AWS Certified Data Engineer – Associate \(DEA-C01\)](#) certification syllabus and offers a resolutely practical and operational approach.

Objectives

- Design and scale data pipelines on AWS.
- Implement data ingestion, transformation, and orchestration using the right services.
- Optimize the performance and costs of data workloads.
- Secure and govern data: IAM, encryption, traceability.
- Effectively prepare for DEA-C01 certification.

Target Audience

- Data Engineers / Analytics Engineers
- Data Analysts looking to transition into Data Engineering

- Cloud/DevOps Engineers operating data pipelines on AWS
- Data Architects

Prerequisites

- Basic knowledge of SQL and data modeling
- AWS fundamentals: S3, IAM, networking basics
- Understanding of pipelines: ingestion, transformations, scheduling

AWS Data Engineer – Associate Training (DEA-C01)

[Day 1 - Morning]

Fundamentals of Data Architecture on AWS

- Understanding the principles of Data Engineering
- Overview of AWS data services
- Data Lake vs. Data Warehouse Architecture
- Data Formats and Partitioning
- Storage Strategies and Data Lifecycle

[Day 1 - Afternoon]

Data ingestion and collection

- Batch ingestion with AWS S3
- Streaming with Amazon Kinesis
- Log and Event Collection
- Real-time stream management
- Hands-on workshop: Building a data ingestion pipeline.

Data transformation and preparation

- ETL and ELT in the AWS ecosystem
- Using AWS Glue
- Cataloging and metadata management
- Cleaning and normalizing datasets
- Hands-on Workshop: ETL Pipeline with AWS Glue.

[Day 2 - Morning]

Data storage and management

- Designing a data lake on S3
- Analytical databases with Amazon Redshift
- NoSQL databases with DynamoDB
- Storage Optimization and Performance
- Partitioning Strategies

[Day 2 - Afternoon]

Data analysis and queries

- Serverless Queries with Amazon Athena
- Data warehouse with Redshift
- Integration with BI Tools
- Optimizing analytical queries
- Hands-on workshop: Data analysis with Athena.

Data pipeline orchestration

- Workflow orchestration with AWS Step Functions
- Data job management
- Pipeline automation
- Dependency management
- Hands-on workshop: Orchestrating a complete data pipeline.

[Day 3 - Morning]

Data security and governance

- Access management with IAM
- Data Encryption
- Governance and Compliance
- Audit and Traceability
- Data Set Access Management

[Day 3 - Afternoon]

Pipeline Monitoring and Optimization

- Monitoring with CloudWatch
- Performance management
- Pipeline optimization strategies
- Error handling and recovery
- Hands-on workshop: Analyzing and optimizing a data pipeline.

Certification preparation

- Structure and format of the official exam
- Skill Areas Covered
- Strategy for answering AWS questions
- Review of key services
- Hands-on workshop: Mock exam + review.

Target Audience

This training is intended for both individuals and companies, large or small, wishing to train their teams in new advanced IT technology or to acquire specific professional knowledge or modern methods.

Entry-Level Assessment

The pre-training assessment complies with Qualiopi quality standards. Upon final registration, the learner receives a self-assessment questionnaire that allows us to evaluate their estimated proficiency in various types of technologies, as well as their expectations and personal goals for the upcoming training, within the limits imposed by the selected format. This questionnaire also allows us to anticipate certain connection or internal security issues within the company (intra-company or virtual classroom) that could pose challenges for monitoring and ensuring the smooth running of the training session.

Teaching Methods

Practical Course: 60% Practical, 40% Theory. Training materials distributed in digital format to all participants.

Organization

The course alternates between theoretical instruction from the instructor—supported by examples and discussion sessions—and group work.

Assessment

At the end of the session, a multiple-choice questionnaire is used to verify that the skills have been properly acquired.

Certification

A certificate will be issued to each trainee who has completed the entire training program.