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# Amazon S3 training: Optimal object storage management

2 days (14 hours)

## Presentation

Discover the fundamentals and advanced techniques of object storage management with Amazon Simple Storage Service (Amazon S3).

Our course program will introduce you to the AWS ecosystem, best practices for creating and managing an S3 bucket, including property configuration, encryption and static website hosting.

Our Amazon S3 training course will give you advanced skills in managing S3 objects, such as uploading, downloading, copying, using multipart upload and interpreting ML models.

You can set up an effective monitoring system with CloudWatch and CloudTrail to ensure the security and availability of stored data.

As with all our training courses, this one will introduce you to the latest Amazon S3 resources.

# Objectives

- Understand the fundamental concepts of Amazon S3 and its integration into AWS
- Efficiently configure and manage S3 buckets
- Master object management techniques
- Ensuring data security and compliance

# Target audience

- System administrators
- Cloud architects
- Developers
- Data engineers
- Safety engineers

# Prerequisites

- Basic knowledge of AWS services
- Familiarity with the command line
- Understanding data storage concepts

## Technical requirements

An AWS account with Amazon S3 features enabled.

## AMAZON S3 TRAINING PROGRAM

#### **INTRODUCTION TO AMAZON S3**

- What is Amazon S3?
- How can it be integrated into the AWS ecosystem?
- Creating and configuring an AWS account
- Introduction to the AWS console and command line interface (CLI)
- Creating your first S3 bucket
- Uploading and downloading a first object

#### S3 BUCKETS MANAGEMENT

- Naming rules and creating buckets
- Configuring and managing buckets properties
- Setting up default encryption and Transfer Acceleration
- Configuring buckets for hosting static websites
- Access control and security policies for buckets

#### **OBJECT MANAGEMENT IN S3**

- Uploading, downloading and copying objects
- Using multipart upload for large files
- Metadata and object tag management
- Creating and using pre-signed URLs to share objects
- Efficient organization of objects with indexing strategies

#### SAFETY AND COMPLIANCE ON S3

- Understanding data encryption options in S3
- Using Identity and Access Management (IAM) to manage access
- Set up bucket policies to block public access
- Activity monitoring and logging with CloudTrail and CloudWatch
- Review of security best practices for S3

## PERFORMANCE, OPTIMIZATION AND MONITORING

- S3 storage classes and object lifecycle policy
- Optimizing performance and using S3 Select and Batch Operations
- Setting up data replication and using access points
- Monitoring with CloudWatch and S3 event management
- Cost analysis and management with AWS Cost Explorer and the S3 price calculator

# Companies concerned

This training course is aimed at both individuals and companies, large or small, wishing to train their teams in a new advanced computer technology, or to acquire specific business knowledge or modern methods.

# Positioning on entry to training

Positioning at the start of training complies with Qualiopi quality criteria. As soon as registration is finalized, the learner receives a self-assessment questionnaire which enables us to assess his or her estimated level of proficiency in different types of technology, as well as his or her expectations and personal objectives for the training to come, within the limits imposed by the selected format. This questionnaire also enables us to anticipate any connection or security difficulties within the company (intra-company or virtual classroom) which could be problematic for the follow-up and smooth running of the training session.

# Teaching methods

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

## Organization

The course alternates theoretical input from the trainer, supported by examples, with brainstorming sessions and group work.

## Validation

At the end of the session, a multiple-choice questionnaire verifies the correct acquisition of skills.

## Sanction

A certificate will be issued to each trainee who completes the course.

