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## **AWS Training: Migration to Native Cloud**

4 days (28 hours)

#### Presentation

Our AWS cloud native training course will teach you how to switch to an infrastructure characterized by flexibility and scalability. Cloud computing has redefined the way companies approach data and applications. This AWS cloud-native training course will teach you complete mastery of typology and communication in AWS distributed systems, as well as more advanced features such as storage and database use. You'll also learn how to configure AWS to ensure the security of your cloud infrastructures. At the end of this course, you'll be able to create a high-performance application on AWS, applying the best practices associated with cloud computing.

## **Objectives**

- Understand the fundamentals of cloud computing and familiarize yourself with AWS
- Master the typology and communication of distributed systems on AWS
- Learn more about computation, advanced architecture and security on AWS
- Discover and apply Cloud management best practices in a professional context
- Implement a complete application on AWS using the concepts learned

## Target audience

- Computer technicians
- Network administrator
- DevOps Engineer
- Architect

## **Prerequisites**

• Experience in system administration

## Software requirements

- Command-line access to AWS
- An IDE
- WSL installed

## Our Cloud AWS training program

#### Day 1: Introduction to Cloud Computing and AWS

- How does Cloud Computing compare with other infrastructures?
- Advantages, disadvantages, supplier overview
- Definition:
  - · laaS.
  - PaaS
  - SaaS
- Introduction to AWS:
  - Services overview
  - Computing, Storage, Networking
  - IAM
- Lab:
  - AWS Dashboard
  - Organization/project management
  - Creating a VPC and an EC2 instance
  - Using S3

#### Day 2: AWS and distributed systems

- Typology of distributed systems :
  - Synchronous, asynchronous
  - Batch processing
  - Streaming
- How to make services communicate :
  - Mail order network
  - SQS, SNS
  - Kinesis
- Lab:
  - Setting up a single queue with SQS
  - Sending notifications with SNS
  - Streaming with Kinesis

#### Day 3: Computing, advanced architecture and security on AWS

- EC2 and other workloads in detail (Lambda, Containers, Deployment)
- Storage and databases: RDS
- Security on AWS
- Discover architectural best practices and reference architectures (architecture center)
- Lab :
  - · Deploying a secure workload
  - Database deployment with RDS

# Day 4: Methodologies and practices for managing Cloud initiatives and projects within a company

- Cloud practices :
  - Agile principles
  - DevOps, SRE
  - Platform engineering
- FinOps, standards compliance
- Cloud-native architectures (microservices, Kubernetes...) and cloud migration concepts
- Lab: Full deployment of an application on AWS

## Companies concerned

This 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 is used to check correct acquisition.

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

skills.