Architecting on AWS

Date and duration
Training code : AWS04EN Duration : 3 days Nombre d'heures : 20 heures
Training with certification
AWS Certified Solutions Architect Associate
Body

AWS architectures enable you to design and **deploy scalable, secure, and reliable cloud solutions**. They leverage AWS's broad range of services and features to meet diverse needs—from simple web applications to complex distributed systems. A well-architected solution takes into account critical aspects such as **security, performance, cost management, and high availability**.
This training provides the skills required to master these concepts and design optimal cloud architectures. You will develop strong expertise in designing, deploying, and optimizing solutions on AWS, following industry **best practices and the AWS Well-Architected Framework**. You will learn how to implement multi-tier architectures, select the right AWS services, ensure security and high availability, and automate your infrastructure.
By the end of this three-day program, you will also have mastered the key skills needed to succeed in the **AWS Certified Solutions Architect – Associate exam** (see certification details in the dedicated section). Comprehensive preparation, including intensive hands-on workshops and in-depth coverage of exam domains, will give you the confidence to pass successfully.

As a premium Authorized Training Partner (ATP) recognized by Amazon Web Services, Oo2 offers qualifying and certifying training programs that meet AWS's rigorous quality standards.

Objectifs

By the end of the AWS Architecting Associate training, you will be able to:

- Identify the core AWS architectural best practices and understand the fundamentals of account security.
- Design and build a secure virtual network with private and public subnets, and implement a multi-tier architecture on AWS.
- Select appropriate compute resources and compare AWS storage and database services based on business needs and scenarios.
- Define the role of monitoring, load balancing, and auto scaling to meet business requirements.

- Identify and use AWS automation tools to build, maintain, and scale your infrastructure.
- Design and secure an extended infrastructure with hybrid networking, peering, gateways, and routing solutions.
- Recognize the benefits of serverless and edge services in terms of business value, latency, and security.
- Explore AWS backup and recovery solutions, and apply best practices to ensure resilience and business continuity.
- Effectively prepare for the AWS Solutions Architect Associate certification exam.

Points forts

- **Certified AWS Expert Instructors**: Benefit from the expertise of AWS-recognized and certified trainers in cloud architecture.
- **Hands-On Labs and Real-World Scenarios**: Master AWS architecture tools and techniques through practical exercises and real-world case studies. You will be prepared to address the real challenges of designing cloud solutions with AWS.
- **Targeted Exam Preparation**: Gain comprehensive preparation for the AWS Certified Solutions Architect – Associate exam, including hands-on workshops aligned with the official exam format and requirements.

Certification

This training provides intensive preparation for the AWS Certified Solutions Architect – Associate exam. At the end of the course, you will receive a voucher code to schedule your exam.

AWS SAA-C03 Exam Details:

- Format: Multiple-choice, 65 questions
- Duration: 130 minutes
- Delivery: Pearson VUE testing centers or AWS online proctoring platform
- Languages available: English, French, Italian, Japanese, Korean, Portuguese, Spanish, and Chinese
- Passing score: Minimum of 720 points

Upon passing the exam, you will earn the AWS Certified Solutions Architect – Associate certification and receive a digital badge.
Important to know: The AWS Solutions Architect Associate certification is valid for three years and requires recertification. Learn more about AWS certification renewal.

Modalités d'évaluation

Practical Work
Case study

Pré-requis

Prerequisites for Attending this AWS Training:

- Completion of AWS Cloud Practitioner Essentials or AWS Technical Essentials is recommended: a basic understanding of AWS services and cloud computing concepts is essential.
- Practical knowledge of distributed systems: you should be familiar with the principles and challenges of distributed architectures.
- Familiarity with networking concepts, including IP addresses, network protocols, and routing.
- Solid understanding of IP addressing, including subnets, network masks, and private vs. public IP addresses.
- Practical knowledge of multi-tier architectures: you should be familiar with the design of multi-tier application architectures.

- Understanding of core cloud computing concepts, such as on-demand computing, virtualization, and cloud service models.

Public

This training is intended for the following audiences:

- **Solutions architects** who design and deploy applications and solutions on the AWS Cloud
- **Solutions design engineers responsible** for planning and designing AWS systems
- **Developers** seeking a deeper understanding of AWS architecture
- **Individuals preparing for the AWS Solutions Architect – Associate certification**

Programme

Day 1: Understanding AWS Architectural Concepts, Security, and Networking

- AWS Services and Infrastructure: Overview of core services, Regions, Availability Zones, and their role in architectural design
- AWS Well-Architected Framework Principles: Exploration of the framework's pillars and their application in solution design
- AWS Account Security: Identity management, implementation of robust security policies, and strategies for managing multiple AWS accounts
- AWS Networking Fundamentals: IP addressing concepts, Virtual Private Cloud (VPC) basics, and VPC traffic security configuration

Labs:

- Explore and interact with the AWS Management Console and Command Line Interface (CLI) to get familiar with the environment
- Build a secure VPC infrastructure with public and private subnets to isolate and protect resources

Day 2: Deploying Compute and Storage Resources

- AWS Compute Services: Comparison of EC2, ECS, EKS, and Lambda
- EC2 Instances and Storage: Selecting EC2 instance types, managing storage, and pricing options
- AWS Storage Services: Comparative analysis of S3, EBS, and EFS
- AWS Database Services: Exploration of RDS and DynamoDB
- Monitoring and Scaling: Alarms, events, load balancing, and auto scaling
- Infrastructure Automation: AWS CloudFormation and infrastructure management

Labs:

- Create a database layer within an Amazon VPC infrastructure
- Configure high availability in Amazon VPC

Day 3: Orchestrating Containers, Integrating Advanced Services, and Planning Recovery

- Container Services: Microservices, containers, and container-based AWS services
- Advanced Networking Solutions: VPC endpoints, VPC peering, hybrid networking, and AWS Transit Gateway
- Serverless Services: API Gateway, SQS, SNS, Kinesis, and AWS Step Functions
- Edge Services: Route 53, CloudFront, DDoS protection, and AWS Outposts
- Backup and Recovery: Disaster recovery planning and using AWS Backup

Labs:

- Build a serverless architecture
- Configure an Amazon CloudFront distribution with an Amazon S3 origin
- Design and implement a multi-tier AWS architecture