

# AWSC-4 - ARCHITECTING ON AWS

Categoria: Amazon Web Services

## INFORMAZIONI SUL CORSO



Durata:  
3 Giorni



Categoria:  
Amazon Web  
Services



Qualifica Istruttore:  
AWS Authorized  
Instructor



Dedicato a:  
Analista



Produttore:  
AWS

## OBIETTIVI

- Identify AWS architecting basic practices.
- Explore using the AWS management tools: The AWS Console, Command Line Interface (CLI), and CloudFormation in a lab environment.
- Examine the enforcement of accounts security using policies.
- Identify the elements that build an elastic, secure, virtual network that includes private and public subnets.
- Practice building an AWS core networking infrastructure.
- Determine strategies for a layered security approach to Virtual Private Cloud (VPC) subnets.
- Identify strategies to select the appropriate compute resources based on business use-cases.
- Practice building a VPC and adding an Elastic Cloud Compute (EC2) instance in a lab environment.
- Practice installing an Amazon Relational Database Service (RDS) instance and an Application Load Balancer (ALB) in the VPC you created.
- Compare and contrast AWS storage products and services, based on business scenarios.
- Compare and contrast the different types of AWS database services based on business needs.
- Practice building a highly available, auto-scaling database layer in a lab.
- Explore the business value of AWS monitoring solutions.
- Identify and discuss AWS automation tools that will help you build, maintain and evolve your infrastructure.
- Discuss network peering, VPC endpoints, gateway and routing solutions based on use-cases.
- Discuss hybrid networking configurations to extend and secure your infrastructure.
- Discuss the benefits of microservices as an effective decoupling strategy to power highly available applications at scale.
- Explore AWS container services for the rapid implementation of an infrastructure-agnostic, portable application environment.
- Identify the business and security benefits of AWS serverless services based on business examples.
- Practice building a serverless infrastructure in a lab environment.
- Discuss the ways in which AWS edge services address latency and security.
- Practice building a CloudFront deployment with an S3 backend in a lab environment.
- Explore AWS backup, recovery solutions, and best practices to ensure resiliency and business continuity.
- Build a highly available and secure cloud architecture based on a business problem, in a project based facilitator-guided lab.

## PREREQUISITI

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

AWS Cloud Practitioner Essentials, or

- Working knowledge of distributed systems
- Familiarity with general networking concepts
- Familiarity with IP addressing
- Working knowledge of multi-tier architectures
- Familiarity with cloud computing concepts

## CONTENUTI

### **Module 1: Architecting Fundamentals Review**

- AWS Services and Infrastructure
- Infrastructure Models
- AWS API Tools
- Securing your infrastructure
- The Well-Architected Framework
- Hands-on lab: Explore Using the AWS API Tools to Deploy an EC2 Instance

### **Module 2: Account Security**

- Security Principals
- Identity and Resource-Based Policies
- Account Federation
- Introduction to Managing Multiple Accounts

### **Module 3: Networking, Part 1**

- IP Addressing
- Amazon Virtual Private Cloud (VPC), Patterns and Quotas
- Routing
- Internet Access
- Network Access Control Lists (NACLs)
- Security Groups

### **Module 4: Compute**

- Amazon Elastic Cloud Compute (EC2)
- EC2 Instances and Instance Selection
- High Performance Computing on AWS
- Lambda and EC2, When to Use Which
- Hands-On Lab: Build Your Amazon VPC Infrastructure

### **Module 5: Storage**

- Shared File Systems
- Shared EBS Volumes
- Amazon S3, Security, Versioning and Storage Classes
- Data Migration Tools

## **Module 6: Database Services**

- AWS Database Solutions
- Amazon Relational Database Services (RDS)
- DynamoDB, Features and Use Cases
- Redshift, Features, Use Cases and Comparison with RDS
- Scaling
- Caching and Migrating Data
- Hands-on Lab: Create a Database Layer in Your Amazon VPC Infrastructure

## **Module 7: Monitoring and Scaling**

- Monitoring: CloudWatch, CloudTrail, and VPC Flow Logs
- Invoking Events
- Elastic Load Balancing
- Auto Scaling Options and Monitoring Cost
- Hands-on Lab: Configure High Availability in Your Amazon VPC

## **Module 8: Automation**

- CloudFormation
- AWS Systems Manager

## **Module 9: Containers**

- Microservices
- Monitoring Microservices with X-Ray
- Containers

## **Module 10: Networking Part 2**

- VPC Peering & Endpoints
- Transit Gateway
- Hybrid Networking
- Route 53

## **Module 11: Serverless Architecture**

- Amazon API Gateway
- Amazon SQS, Amazon SNS
- Amazon Kinesis Data Streams & Kinesis Firehose
- Step Functions
- Compare Amazon SQS to Amazon MQ
- Hands-on Lab: Build a Serverless Architecture

## **Module 12: Edge Services**

- Amazon CloudFront
- AWS Web Application Firewall (WAF), DDoS and Firewall Manager
- Compare AWS Global Accelerator and Amazon CloudFront
- AWS Outposts
- Hands-On Lab: Configure an Amazon CloudFront Distribution with an Amazon S3 Origin

## **Module 13: Backup and Recovery**

- Planning for Disaster Recovery
- AWS Backup

-Recovery Strategies

**Capstone Lab: Build an AWS Multi-Tier Architecture**

- Participants review the concepts and services learned in class and build a solution based on a scenario.
- The lab environment provides partial solutions to promote analysis and reflection.
- Participants deploy a highly available architecture.
- The instructor is available for consultation.

## INFO

**Esame:** SAA-C02 - AWS Certified Solutions Architect Associate

**Manuale:** Materiale didattico ufficiale AWS in formato digitale

**Prezzo manuale:** incluso nel prezzo del corso a Calendario

**Natura del corso:** Operativo (previsti lab su PC)