

# AWSC-8 - ARCHITECTING ON AWS - ACCELERATOR

Categoria: Amazon Web Services

## INFORMAZIONI SUL CORSO



Durata:  
5 Giorni



Categoria:  
Amazon Web  
Services



Qualifica Istruttore:  
AWS Authorized  
Instructor



Dedicato a:  
Analista



Produttore:  
AWS

## OBIETTIVI

In this course, you will learn how to:

- Make architectural decisions based on AWS architectural principles and best practices
- Use AWS services to make your infrastructure scalable, reliable, and highly available
- Use AWS Managed Services to enable greater flexibility and resiliency in an infrastructure
- Make an AWS-based infrastructure more efficient to increase performance and reduce costs
- Use the Well-Architected Framework to improve architectures with AWS solutions

## PREREQUISITI

We recommend that attendees of this course have:

- Attended AWS Technical Essentials classroom training or have equivalent experience
- Working knowledge of distributed systems
- Familiarity with general networking concepts
- Working knowledge of multi-tier architectures
- Familiarity with cloud computing concepts

## CONTENUTI

### Module 1: Introduction

- The real story of AWS
- Well-Architected Framework
- Six advantages of the cloud
- Global infrastructure

### Module 2: The Simplest Architectures

- S3
- Glacier
- Choosing your regions
- Hands-on lab: Static Website

### **Module 3: Adding a Compute Layer**

- EC2
- Storage solutions for instances
- Purchasing options such as dedicated host vs instances

### **Module 4: Adding a Database Layer**

- Relational vs non-relational
- Managed databases
- RDS
- Dynamo DB
- Neptune
- Hands-on lab: Deploying a web application on AWS

### **Module 5: Networking in AWS Part 1**

- VPC
- CIDR and subnets
- Public vs private subnets
- NAT and internet gateway
- Security groups

### **Module 6: Networking in AWS Part 2**

- Virtual Private Gateway
- VPN
- Direct Connect
- VPC peering
- Transit Gateway
- VPC Endpoints
- Elastic Load Balancer
- Route 53
- Hands-on lab: Creating a VPC

### **Module 7: AWS Identity and Access Management (IAM)**

- IAM
- Identity federation
- Cognito

### **Module 8: Organizations**

- Organizations
- Multiple account management
- Tagging strategies

### **Module 9: Elasticity, High Availability, and Monitoring**

- Elasticity vs inelasticity
- Monitoring with CloudWatch, CloudTrail, and VPC Flow Logs
- Auto scaling
- Scaling databases
- Hands-on lab: Creating a highly available environment

### **Module 10: Automation**

- Why automate?
- CloudFormation
- AWS Quick Starts
- AWS Systems Manager
- AWS OpsWorks
- AWS Elastic Beanstalk

### **Module 11: Deployment Methods**

- Why use a deployment method?
- Blue green and canary deployment
- Tools to implement your deployment methods
- CI/CD
- Hands-on lab: Automating infrastructure deployment

### **Module 12: Caching**

- When and why you should cache your data
- Cloudfront
- Elasticache (Redis/Memcached)
- DynamoDB Accelerator

### **Module 13: Security of Your Data**

- Shared responsibility model
- Data classification
- Encryption
- Automatic data security

### **Module 14: Building Decoupled Architecture**

- Tight coupling vs loose coupling
- SQS
- SNS

### **Module 15: Optimizations and Review**

- Review questions
- Best practices
- Activity: Design and architecture - two trues and one lie

### **Module 16: Microservices**

- What is a microservice?
- Containers
- ECS
- Fargate
- EKS

### **Module 17: Serverless**

- Why use serverless?
- Lambda
- API Gateway
- AWS Step Functions
- Hands-on lab: Implementing a serverless architecture with AWS Managed Services

### **Module 18: Building for Resilience**

- Using managed services greatly increases resiliency
- Serverless for resiliency
- Issues with microservices to be aware of
- DDoS
- Hands-on lab: Amazon CloudFront content delivery and automating WAF rules

### **Module 19: Networking in AWS Part 3**

- Elastic Network Adapter
- Maximum transmission units
- Global Accelerator
- Site to site VPN
- Transit Gateway

### **Module 20: Understanding Costs**

- Simple monthly calculator
- Right sizing your instances
- Price sensitive architecture examples

### **Module 21: Migration Strategies**

- Cloud migration strategies
- Planning
- Migrating
- Optimizing
- Hands-on lab: Application deployment using AWS Fargate

### **Module 22: RTO/RPO and Backup Recovery Setup**

- Disaster planning
- Recovery options

### **Module 23: Final Review**

- Architecting advice
- Service use case questions
- Example test questions

## **INFO**

**Esame:** SAP-C01 - AWS Certified Solutions Architect Professional

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

**Costo materiale didattico:** incluso nel prezzo del corso a Calendario

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