Architecting on AWS (AWS)

NWV_310 | Expert-Led Live | 5G Core | ⚙⚙⚙
Course Duration: 3 days

In this course, you will learn to identify services and features to build resilient, secure, and highly available IT solutions on the AWS Cloud. Architectural solutions differ depending on industry, types of applications, and business size. AWS Authorized Instructors emphasize best practices using the AWS Well-Architected Framework, and guide you through the process of designing optimal IT solutions based on real-life scenarios. The modules focus on account security, networking, compute, storage, databases, monitoring, automation, containers, serverless architecture, edge services, and backup and recovery. At the end of the course, you will practice building a solution and apply what you have learned.

Intended Audience

Architecting on AWS is for solutions architects, solution-design engineers, and developers seeking an understanding of AWS architecting.

Objectives

After completing this course, the learner will be able to:

- Identify AWS architecting basic practices
- Practice building a multi-tier architecture in AWS
- Compare and contrast AWS storage products and database services based on business scenarios
- Identify the role of monitoring, load balancing, and auto scaling responses based on business needs
- Discuss AWS automation tools that will help you build, maintain, and evolve your infrastructure
- Discuss hybrid networking, network peering, and gateway and routing solutions
- Explore AWS container services for an infrastructure-agnostic, portable application environment
- Explore AWS backup, recovery solutions, and best practices to ensure resiliency

Course Prerequisites

AWS Cloud Practitioner Essentials (AWS)

Outline

1. Architecting Fundamentals
1.1 AWS services and infrastructure
1.2 AWS Well-Architected Framework
Exercise: Hands-on Lab: Explore the AWS Management Console and AWS Command Line Interface

2. Account Security
2.1 Principals and identities
2.2 Security policies

3. Networking 1
3.1 VPC fundamentals and VPC traffic security

4. Compute
4.1 EC2 instances, storage and pricing
4.2 AWS Lambda
Exercise: Hands-On Lab: Build your Amazon VPC infrastructure

5. Storage
5.1 Amazon S3
5.2 Shared file systems

6. Database Services
6.1 Amazon RDS
6.2 Amazon DynamoDB
6.3 Database caching and migration tools
Exercise: Hands-on Lab: Create a database layer in your Amazon VPC infrastructure

7. Monitoring and Scaling
7.1 Alarms and events
7.2 Load balancing and auto scaling
Exercise: Hands-on Lab: Configure high availability in your Amazon VPC

8. Automation
8.1 AWS CloudFormation and Infrastructure management

9. Containers
9.1 Microservices, Containers, and Container services

10. Networking 2
10.1 VPC endpoints and VPC peering
10.2 AWS Transit Gateway

11. Serverless
11.1 Amazon API Gateway
11.2 Amazon SQS and SNS
11.3 Amazon Kinesis
11.4 AWS Step Functions
Exercise: Hands-on Lab: Build a serverless architecture

12. Edge Services
12.1 Amazon Route 53
12.2 Amazon CloudFront
12.3 DDoS protection
12.4 AWS Outposts
Exercise: Hands-on Lab: Configure an Amazon CloudFront distribution

13. Backup and Recovery
13.1 Disaster planning and recovery strategies
13.2 AWS Backup
Exercise: Hands-on Lab: Capstone lab – Build an AWS Multi-Tier architecture