Architecting on AWS (AWS)

NWV_310 | Expert-Led Live | 5G Core | Expert 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

- Architecting Fundamentals
 AWS services and infrastructure
 AWS Well-Architected Framework
 Exercise: Hands-on Lab: Explore the AWS Management Conso 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. Compute4.1 EC2 instances, storage and pricing4.2 AWS Lambda
- Exercise: Hands-On Lab: Build your Amazon VPC infrastructur
- 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 Amaz infrastructure

7. Monitoring and Scaling7.1 Alarms and events

	7.2 Load balancing and auto scaling Exercise: Hands-on Lab: Configure high availability in your Amazon VPC	
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	9. Containers	\mathbb{I}
	9.1 Microservices, Containers, and Container services	1/_
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	10. Networking 2	
	10.1 VPC endpoints and VPC peering	
	10.2 AWS Transit Gateway	
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	11. Serverless	
	11.1 Amazon API Gateway	
	11.2 Amazon SQS and SNS	$\overline{)}$
	11.3 Amazon Kinesis	
е	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	V
	12.4 AWS Outposts	Ľ.
	Exercise: Hands-on Lab: Configure an Amazon CloudFront distribution	\backslash
	Exercised: Harlas on East Conligure any inazon cloud roll distribution	
	13 Backup and Recovery	
	13.1 Disaster planning and recovery strategies	
	13.2 AWS Backup	
	Evercise: Hands-on Lab: Canstone lab - Build an AWS Multi-Tier-	
	architecture	-